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THE FINANCES OF PUBLIC ENTERPRISES

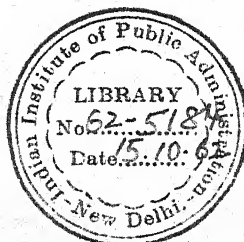
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**Indian Institute of Public Administration
New Delhi
1961.**

By the same Author

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 2. Nationalised Road Transport Services in Hyderabad
 3. The Structure of the British Electricity
Supply Industry
 4. Economics of Road Rail Policy
 5. Public Enterprise in Britain
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Preface

The discussion contained in this book has no ideological purport. My only aim is to examine how the finances of the public enterprises can be organised in the best interest of the country and how the public sector can play a significant role in the economic development of India.

The purpose of the empirical evidence quoted from several published reports is not to allege that so-and-so public enterprise is guilty of so-and-so error, but to convey that the points made in the course of the discussion are neither hypothetical nor merely academic.

I have been able to gain an overall idea of the cross-section of public enterprise in India, while conducting the Research Project on "Control of Public Enterprises in India" (R.P.C., Planning Commission). I have, however, excluded from the present book discussions which are contained in my earlier book "The Structure of Public Enterprise in India" as well as in my R.P.C. Report entitled "Control of Public Enterprise in India". Brief references have been made to certain topics covered in either of these writings.

Public enterprise organisation as well as governmental administration in relation to ^{it} are both in a continuous state of evolution in the country today. It is hoped that a thorough analysis of the major financial problems will be of value in indicating the lines on which

(ii)

improvements may be worked out in the financial organisation of the public sector.

I express my gratitude to Professor V.K.N.Menon, Director, Indian Institute of Public Administration, for his invitation to me to deliver four lectures at the Institute during November 1961. This gave me an opportunity to process my ideas and present them in the present form.

V.V.RAMANADHAM

CHAPTER ONE

PUBLIC ENTERPRISE PROFITS

It is proposed to deal with the major aspects of the financial problems of public enterprises in the course of four chapters devoted, in order, to Profits, Profit Criterion, Pricing and Financial Organisation. The chapters are not mutually exclusive in content. Cross-reference is likely on several issues, though care has been taken to include elaborate discussion on a point in the chapter where it is found most suitable. On the whole there is a continuous thread in the financial analyses contained in the different chapters.

The present chapter is devoted to a consideration of the profit conditions of the public enterprises. To start with, the statutory background is briefly outlined. Then follows a critical survey of the profits currently being earned. Finally, the estimates of surplus during the third plan period and their implications^{are} examined and conclusions presented.

1. THE STATUTORY BACKGROUND

It is not intended ~~to~~ extensively to deal with the statutory framework governing the financial aspects of the public enterprises;¹ the purpose of this section is to bring out the most prominent statutory features relevant to a consideration of the profit conditions.

¹ For a detailed discussion, see the author's book, The Structure of Public Enterprise in India, Chapter V, and the author's Report on Control of Public Enterprises in India, Chapter V, submitted to the R.P.C., Planning Commission.

Firstly, the statutes governing the public corporations do not unequivocally call for commercial bias in their operations. Only a few Acts clearly require it. For example, Section 24 of the State Financial Corporations Act, 1951, requires that "the Board in discharging its functions under this Act shall act on business principles". Strangely there is no corresponding provision in the Industrial Finance Corporation Act, 1948, though in practice this Corporation has been running far more profitably than the State Financial Corporations. The Air Corporations are required to "act so far as may be on business principles", under Section 9 of the Air Corporations Act, 1953. The Road Transport Corporations Act, 1950, lays down, under Section 22, that "it shall be the general principle of the ²Corporation that in carrying its undertaking it shall act on business principles". A similar provision is made under the Delhi Transport Authority Act 1950, though the phraseology is qualified: "The Authority shall act as far as possible on business principles", Section 29. The Electricity Supply Act, 1948, is the only other in which clear bias is found in favour of commercial performance.

It is not to be inferred that the other corporations are invariably either precluded from acting on business principles or intended not to act on such principles. It will be desirable, nevertheless, to amend their Acts so as to provide for the right degree of emphasis on business

principles in their performance, either purely and simply, or subject to qualifications.

Secondly, none of the Acts governing the public corporations visualises the upper limit to the profits to be earned. This may turn out to be serious lapse in the case of a capable monopoly undertaking; and the consumer will be compelled to hope for considerate behaviour on the part of the management or, alternatively, for effective public control of prices in his favour. It is, therefore, appropriate to introduce satisfactory provisions that place automatic checks on the profit targets of the public enterprises. For a proper perspective on this matter, however, it may be added that the theoretically possible danger to the consumer has not so far materialised, in the generality of the cases, as will be noticed in the next section.

Thirdly, though it may be assumed that the statutes take for granted the requirement on the part of the public enterprises to recover not only their costs but interest or dividend on capital, specific provisions in this respect are found only in two Acts. The Electricity Supply Act lays down, under Section 55, that "the Board shall not carry on its operations under this Act at a loss"; further provisions, such as Section 67, define the nature and priorities of charges to, and appropriations out of, revenue. The Road Transport Corporations Act, under Section 28, stipulates not only interest on capital

but dividend on capital raised by the issue of shares as "a part of the expenditure of the Corporation".

To point at ~~on~~ the general absence of such provisions in the other Acts is not ~~of~~ merely ^{of} academic value. When applied to the government companies, which, unlike the public corporations, are not governed by specific Acts, the non-declaration of interest or dividend on capital as an item of cost has led to financial anomalies which will merit our consideration later in this chapter and in chapter four.

Fourthly, under most public corporation Acts the profits remaining after transfers to reserves go to the government. Perhaps the State Bank of India, and the Life Insurance Corporation are the only two, whose Acts do not mention the possibility of the final surpluses passing to the government. For example, under Section 38 of the State Bank of India Act, 1955, the State Bank is empowered, after making all the stipulated provisions, "out of its net profits (to) declare a dividend". Likewise under Section 28 of the Life Insurance Corporation 1956, while not less than 95 per cent of the surplus "shall be allocated to or reserved for the policyholders", "the remainder may be utilised for such purposes and in such manner as the central government may determine".

There are innumerable instances in the other Acts of provisions enabling transfers of surpluses from the corporations ^{to} ~~of~~ the government. Under Section 37 of the

Damodar Valley Corporation Act, 1948, "the net profit, if any, attributable to each of the main objects, namely, irrigation, power and flood control, shall be credited to the participating governments in proportion to their respective shares in the total capital cost attributed to that object". Section 32 of the Industrial Finance Corporation Act, 1948, provides for the final surplus being paid to the central government. Similarly in the case of the State Financial Corporations, Section 35 of the State Financial Corporations Act, 1951, lays down that "if there is a surplus in the net profits after declaring a dividend..... such surplus shall be paid to the state government". Section 30 of the Road Transport Corporations Act 1958, envisages the final surplus being "made over to the state government for the purpose of road development". Even the Electricity Supply Act, 1948, which is one of the well written Acts in the financial context, mentions, though at the end of a long list of priorities in the disposal of net revenues, "state revenues"; this has, of course, no practical effect, since the financial condition of State Electricity Boards is yet too poor for the profits to reach to this last claimant.

Fifthly, except the Electricity Supply Act, 1948, which enjoins on the Board to adjust its charges from time to time in accordance with the objective of not making a loss, no public corporation Act provides automatic validity to attempts at price modifications under conditions of deficit. This is necessary to provide, for it will

strengthen the position of a needy public enterprise seeking to rise its prices vis-a-vis ill-informed criticism.

Lastly, it is only in a few Acts that the possibility of a governmental subsidy or subvention is envisaged under certain conditions making for the losses in public enterprise operations. Under Section 34 of the Air Corporations Act 1953, the Corporations are entitled to being reimbursed with the losses sustained in operations specifically undertaken at the direction of the government, subject to certain qualifying conditions. Under Section 36 of the State Bank of India Act 1955, the losses sustained by the branches established under Section 16(5) may be made good by the Integration and Development Fund which is built up from the dividends due to the Reserve Bank on its shares in the State Bank.

Turning to the government companies, we find that there are fewer clear financial stipulations. In most cases, the matters are left to be decided by, or under the approval of, the President. One aspect deserving emphasis is that, equity capital constituting the major segment of government company capitalisation, the extent of profits liable to transfer to the government is proportionate to the rates of dividend which the government, through the board of directors, may determine. In other words, the ease of surpluses reaching the public exchequer is greater than in the case of the public corporations.

In the light of the above statutory background, let us make a critical survey of the profits position of the public enterprises. This may proceed in three stages: a) ^{currently} profits ~~earned~~ (b) estimated surpluses during the third plan and (c) the implications of the third plan estimates.

2. PROFITS CURRENTLY EARNED

The analysis in this section is confined to the public enterprises at the central level. They are the more important constituent of the public sector. Many of the state enterprises, other than electricity and road transport, are small and too recent in formation. For example, there were 34 state government companies in Orissa with a capital outlay of Rs.49.91 lakhs in 1961.¹

The data are taken from "Principal Public Sector Undertakings in India" published by the Central Statistical Organisation (C.S.O.), and relate generally to 1959-60. Wherever explanatory details are felt necessary reference is made to the annual reports of the enterprises concerned. The C.S.O.'s volume presents information for 56 enterprises, classified as 9 (1) industrial undertakings completed and in full operation, (2) industrial undertakings incomplete and not in full operation and (3) commercial, financial, general development and miscellaneous undertakings.

Several difficulties are encountered in examining their profitability, partly because of inadequacies of data

1 Information Broadsheet 2/61, Company Law Administration.

and partly for more fundamental reasons of a conceptual nature . These are enumerated below.

(a) The figures of ploughed-back amounts and current profits as shown in the published accounts of the enterprises are not necessarily accurate in some cases. The former are sometimes such mixed lumps that we cannot at once know to what extent they represent free reserves. Nor are the profit figures really net in nature. They are often exclusive of provisions for income tax. Not in every case are all the necessary revenue charges debited, or only the charges to revenue, as opposed to appropriations of profit, provided for, before presenting the figures described as net profits.

(b) The resources employed in different undertakings are derived in widely varying proportions through the media of capital and loans; the latter, further, are secured by different units at different rates of interest. These diversit^{ies}~~y~~ qualify inter-unit comparisons in terms of the rate of return on capital.

(c) Though the majority of the public enterprises have been set up in recent years, the capital figures of the long established undertakings represent historical values. The rates of return calculated in terms of such figures, without due regard to their higher replacement values today, are not conceptually homogeneous with those computed on the more recent investments.

To cull out comparable data from the financial statements of the enterprises, has been far from easy. Certain adjustments deemed necessary have been made to the profits figures as revealed^e_A in the accounts of some public enterprises.

While infallible accuracy cannot be claimed for the adjusted figures presented below, they are fairly reliable; and errors of adjustment are likely to cancel themselves out over the mass of data dealt with. That the results derived are broadly representative may be gathered from a comparison of these with the results computed on the basis of unadjusted figures taken raw from the financial statements of the public enterprises. The purpose of the adjustments is to refine the apparatus of calculations to some extent.

TABLE 1

BASIC FINANCIAL DATA OF CENTRAL PUBLIC ENTERPRISES: 1959-60

	No. of enter- prises consi- dered	Capital out- lay Rs. crores	Reser- ves Rs. crores	Loans Rs. crores	Profits Rs. crores
1. Industrial undertakings completed and in full operation	19	74	10	35	2.48
2. Commercial, financial, general development and miscellaneous undertakings	18	183	2	85	5.65
3. Industrial undertakings incomplete and not in full operation	9	496	--	221	--

The Oil and Natural Gas Commission is excluded from the first category because of the absence of capital figures; and Chittaranjan Locomotive Works and Integral Coach Factory are excluded because of the advisability of merging them with the railways. From the third category are excluded Rehabilitation Finance Administration, Employees' State Insurance Corporation, and Janpath Hotel on grounds of incomplete data, the railways for separate consideration, and Life Insurance Corporation, Reserve Bank of India, and State Bank of India because of their peculiar circumstances. Thus the other enterprises considered here, for which the required financial data are fully available, ~~are 19 in the category of fully available,~~ are 19 in the category of fully completed industrial undertakings and 18 in the category of commercial etc. undertakings. category. (These are listed out in Appendix 1.) The yet incomplete industrial enterprises are excluded from further examination for obvious reasons.

(a) Profit rates

The rate of profit on the capital outlay works out at 3.5 per cent for the industrial enterprises - roughly similar to the figure of 3.4 per cent in 1958-59. In the case of the commercial etc. enterprises it was 3.1 per cent in 1959-60, as against 2.3 per cent in the previous year. The coverage of the data and therefore the aggregates of capital are not exactly the same in the two years. On the whole, a profit of Rs.8.13 crores was earned in 1959-60

on a capital outlay of Rs.258 crores by 37 public enterprises which have passed the stage of gestation.

The following table shows the classification of the enterprises and the capital outlay in terms of the rate of profit earned.

TABLE 2

CLASSIFICATION OF PUBLIC ENTERPRISES BY PROFITABILITY

% of profit on capital	1958-59		1959-60		All enter-			
	No. of enter- prises	Capital Rs. crores	Industrial enterprises No. Capital Rs. crores	Commercial enterprises No. Capital Rs. crores	No. Capital Rs. crores	prises Capital Rs. crores		
0 or less	11	29.29	3	5.70	8	11.43	11	17.13
0 - 1	6	53.89	4	10.91	3	31.44	7	42.35
1 - 3	5	20.92	4	42.00	1	0.93	5	42.93
3 - 5	3	13.78	1	4.00	2	132.29	3	136.29
5 -10	4	23.51	4	7.25	1	1.00	5	8.25
10 and above	6	10.58	3	4.22	3	6.30	6	10.52
	35	151.97	19	74.08	18	183.39	37	257.47

Roughly the same number of enterprises, though not identically the same enterprises, made a profit of five per cent or above in the two years. In terms of capital outlay, however, about 16 per cent of the total capital, as against seven per cent in 1959-60, earned five per cent or more in 1958-59. Though the relative number of enterprises making zero or negative profit was about the same in the two years, about 19 per cent of the aggregate capital outlay was marked by losses in 1958-59, as against seven per cent in 1959-60. A broad inference, though of limited value - derived from the performance of barely two years, is that large numbers with losses or with high profits were giving place to large numbers in the intermediate categories of low profits. The modal range of return during 1959-60 was 3-5 per cent, a little more than half the aggregate capital having occurred in that range. The list of enterprises falling in the different profit ranges during 1959-60 is shown in Appendix 1.

At this stage we may find out how the calculations on the basis of "unadjusted" figures look. On an aggregate capital of Rs.101.42 crores industrial undertakings earned Rs.4.67 crores before taxation, or at the rate of 6.9 per cent in 1958-59. The return was 4.9 per cent - Rs.3.63 crores on Rs.74.08 crores of capital outlay in 1959-60. These figures provide corroboratory evidence of the fall in the general rates of profitability, established by the "adjusted" figures, during 1958-60.

The return on the capital outlay of commercial etc. enterprises, on the basis of the unadjusted figures, was 5.3 per cent in 1959-60.

The rate of profit is slightly lower when the profits earned are compared with capital, plus reserves. For the industrial enterprises it was 3.0 per cent in 1959-60, as against 3.2 per cent in 1958-59; the corresponding figures in the case of the commercial enterprises were 3.1 per cent and 2.1 per cent.

We may compute the rate of return by treating all investments, capital, reserves and loans, on the one side, and the corresponding returns, composed of profit and interest charges on loans, on the other. The figure was 2.1 per cent in 1959-60 for the industrial enterprises and 2.9 per cent for the commercial enterprises.

A close examination of the profits data of the commercial etc. enterprises reveals that the average return of 3.1 per cent on capital is a deceptive figure, in that out of the 18 undertakings examined only three were very profitable - State Trading Corporation of India Ltd., Industrial Finance Corporation and Orissa Road Transport Co. Ltd. ; all these enjoy considerable monopoly power. The average is thus unrepresentative of the performance of the generality of these enterprises. On the other hand, the dispersion in the profit rates of the industrial undertakings is far lower. Unfortunately however, this connotes the generally uniform lowness of profitability on the part

of most of the enterprises engaged in manufacturing activity. The most profitable in this category are Hindustan Antibiotics Ltd., Hindustan Cables Ltd., and Travancore Minerals Ltd. all enjoying monopoly markets. The possession of monopoly power has, however, not been an invariable cause of high profits in other cases - e.g., Indian Telephone Industries Ltd. and Bharat Electronics Ltd. The reasons for low profits, wherever they occur, deserve looking into.

It is interesting to look at the changes in the profitability of individual enterprises between 1958-59 and 1959-60. The profit rates are shown diagrammatically, with the data for 1959-60 on the X axis and those of 1958-59 on the Y axis. Each point represents the performance of one enterprise in the two years. The points occurring ^{above} the 45° line represent the enterprises which ^{declined} improved in profitability during the period, whereas the points occurring ^{below} ~~above~~ the line represent those that ^{improved} declined in profitability. In the case of the industrial enterprises more undertakings declined in profitability; whereas in the case of the commercial enterprises

(b) Capital formation

Free reserves constituted about 15 per cent of the capital outlay in the case of the industrial enterprises by the end of 1959-60; for the commercial etc. enterprises the figure stood at about 1 per cent. (If the Reserve Bank of India and the State Bank of India are included in the latter, the figure improves somewhat.) It should be surprising if the proportion of reserves to capital were far higher for the latter category, for few earned good profits except for State Trading Corporation of India Ltd. and Life Insurance Corporation, which are also the important units having reserves. Of the 37 enterprises examined, the following alone have reserves of importance in relative terms. (The figure is of little significance in the case of the State Trading Corporation of India Ltd., because, being a trading agency, its capital outlay is small.)

TABLE 3

PUBLIC ENTERPRISES WITH SIGNIFICANT RESERVES

=====		
Enterprises	Year	Reserve as % of capital outlay
=====		
State Trading Corporation	.. 1958-59	258.7
Hindustan Antibiotics	.. 1959-60	77.0
Hindustan Cables Ltd.	.. 1959-60	52.3
Hindustan Insecticides Ltd.	.. 1959-60	44.9
Orissa Road Transport Co.Ltd.	.. 1958-59	39.4
Travancore Minerals Ltd.	.. 1959-60	35.1
Sindri Fertiliser and Chemicals Ltd.	.. 1959-60	29.8
Hindustan Housing Corporation Ltd.	.. 1958-59	26.3
Industrial Finance Corporation	.. 1959-60	23.4
Hindustan Aircraft Ltd.	.. 1959-60	17.0
Air India International	.. 1959-60	16.5
=====		

According to a recent survey¹ by the Reserve Bank of India the free reserves of a sample of 1,001 large and medium-seized public limited companies were about two-thirds of the paid-up capital - Rs.387 crores as against Rs.588 crores. During the period 1955-59 there was an increase in their paid-up capital by 25 per cent as against an increase in their free reserves by 39 per cent; and about a third of the profits after tax were ploughed back. The dividend worked out at 11.8 per cent on capital in 1959, and the profit after tax at 10.5 per cent of the net worth, inclusive of capital and free reserves. Retained profits were 6.5 per cent of the capital in the same year.

The importance of self-financing in the private sector is thus obvious. If one wishes to compare these figures with the corresponding ones for the public sector, one has to remember that the proportion of reserves to paid-up capital improves cumulatively as years roll by. However the improvement is possible only when the rate of profitability is consistently high, if not progressively high as the years roll by. Though the relative infancy of most public enterprises is an admissible cause of their relatively low reserves, the other factor, viz., the low profitability of the public sector undertakings which are in full operation should strike us as an important cause of low reserves.

1 Bulletin of the Reserve Bank of India, September 1961.

As we turn to a discussion of the relative profit retentions, i.e., profits earned but ^{not} ploughed back in a year, two findings suggest themselves. Firstly, ^{very} few enterprises were able to transfer large sums out of profits to ~~the credit of~~ reserves during 1959-60, particularly so in the case of the commercial enterprises. Secondly, the transfers made in a year do not really represent net capital formation in that year, for two reasons: (a) part of the amounts transferred came from the profits earned in the earlier years - for example, Rs.92 lakhs in the case of Sindri Fertilisers and Chemicals Ltd., whose current profits were Rs.26 lakhs in 1959-60¹; and (b) several transfers were made without the declaration of dividends on capital - for example, not only the entire profit of Rs.77 lakhs of the year 1959-60 but a part of the previous years' profits was transferred to reserves by the Hindustan Antibiotics Ltd. without provision having been made for dividend; similarly no dividend was declared prior to the transfer of the entire amount of current profits in 1959-60 by Hindustan Aircraft Ltd. and National Coal Development Corporation Ltd.

It is, therefore, doubtful whether even the limited magnitude of free surpluses found with several public enterprises represent net capital formation in the sense of re-investments over and above the reimbursement of all relevant costs including the cost of the capital. (We shall have occasion to refer to this problem in the ~~third~~ ^{fourth} chapter.) It is the predominance of equity capital, on

which the government has foregone current dividend earnings, that has made many of the reserve accumulations possible. Had there been bonded debt in the place of equity capital, reserve accumulations would not have been possible simultaneously with the non-payment of interest charges. To the extent that the reserves were built up at the sacrifice of even a minimum dividend, they are strictly in the nature of additions to capital through fresh subscriptions from the government; for they are analogous to dividends paid out in the first place but returned as additional investments by the shareholder, namely, the government.

In conclusion the public enterprises ought to earn reasonable profits and be able to plough back reasonable amounts, so that their relative role in the national economy does not lag far behind the financial performance of the private sector. (Qualifications to the concept of their relative role will be examined in due course.) If we assume that in the near future the currently low-profit yielding enterprises will improve in their profitability and/or the important enterprises still in gestation - e.g., Hindustan Steel Ltd., Heavy Electricals Ltd., Indian Oil Co.Ltd., and the Neyveli Lignite Corporation Ltd. - will become highly profitable, the public sector will be able to compare with the rest of the economy in the matter of profitability and capital formation. If these two assumptions do not materialise, it will lag behind the rest of the economy in both these respects. It is difficult to predict how the

future prospects will be; but certain determining qualifications may be noted.

(c) Basic determinants of profitability

There are four factors influencing the profit potentiality of the public enterprises. Firstly, the public enterprises, especially the central ones, structurally comprise such economic activities as are intrinsically characterised by relatively poor rewards in any country. Transport, other public utilities, warehousing, shipbuilding, producer goods industries, and several kinds of positively promotional activities, are likely to record lower returns of profit than the other industries, particularly the secondary and consumer goods industries. Part of the justification for the governmental assumption of the "scheduled" activities in India,¹ rests on the very unlikelihood of the private investor turning to them on the profit criterion. As long as the composition of the public sector is so biased, their profitability cannot be so high as that of the private sector progressively relieved of these investment decisions.

Secondly, for no inefficiency or lack of effort on the part of a public enterprise, it may be unable to accumulate profits at its level, though simultaneously returns accumulate at other levels, particularly at the level of the public exchequer. Diverse examples are possible in this connection. The Damodar Valley Corporation has not

¹ Under the Industrial Policy Resolution.

been able to realise the sale proceeds on water made available to the Government of West Bengal, since the latter has contested the rationale of the charge. It is estimated that the Corporation has been denied an earning of approximately Rs. one crore of revenue to date, which, under the Act governing it, is due to it. Road transport operations at the state level, when converted into the corporation form of organisation, suddenly show shrunken surpluses because of income tax payments, though nothing substantive has happened which reduced their profitability. The Indian Telephone Industries Ltd. prices its products at a low level because the parental department, namely, the Posts and Telegraphs Department, which happens to be its main customer, assumes it as immaterial whether a high price is paid by it for the telephones purchased from the Company, thereby affecting its own budget position, or a low price is paid to the Company thus affecting the Company's financial picture. The latter practice is preferred. Similar attitudes apply to the limited profit accumulations of other undertakings such as Hindustan Aircraft Ltd.

Thirdly, some public enterprises, while recording low direct returns, lead to important indirect returns elsewhere in the economy. For example, the Electricity Boards and Fertiliser Corporation of India Ltd., can earn far higher profits if they choose to, by virtue of their monopoly position; however, it may be the wish of the government that the prospect of their external economies ought not to be severely diminished by such motivation.

Lastly, the profitability of the public enterprises rests on the efficiency with which they work. Efficiency may be of three kinds: technical, organisational, and financial. Technical efficiency is the easiest to adjudge as well as improve, because it is an engineering function which, subject to broad decisions on the production function, rationalisation etc., can be left to functional experts to achieve. Organisational efficiency is derived from the overall as well as the internal structure of an enterprise and depends partly on the right application of the principles of good organisation and partly on the personal equations among the top and intermediate levels of managers. Financial efficiency is the most difficult of all and covers the functions of selling, arranging finance, conceiving of risks and choosing the right ones, market research, price fixing and discrimination, decisions on expansion and contraction of capacity and so on. The profit potentiality of the public enterprises depends on the conditions making for these three kinds of efficiencies.

In concluding this section we may enunciate the desiderata in respect of these four factors. Firstly, there must be adequate public decision on how poor the public sector undertakings are or are desired to be, relatively to the private undertakings. Secondly, it seems preferable to leave the public enterprises to operate as independent units aiming at their own profit and capital formation; the government departments, which constitute their major

consumers, may ask for subsidies in their turn during the budget demands. Thirdly, there ought to be proper checks and balances with regard to the claims of indirect returns - a problem we shall deal with in the next chapter. Finally, there can be no other opinion on the question of inefficiency than that it must be rooted out. However, attempts at the removal of inefficiency are under peculiar limitations in the public sector - a problem with which we are not dealing in the course of the present discussions.

3. THE THIRD PLAN ESTIMATES

For the first time the Planning Commission, while estimating the resources available for development during the third plan period, has envisaged a surplus of Rs.550 crores from the public enterprises including the railways. This is over and above the interest charges or dividend on capital, and represents roughly the extent of capital formation expected at the level of the public sector undertakings. An amount of Rs.100 crores is expected from the railways, Rs.300 crores from the other central enterprises and Rs.150 crores from the state enterprises.

The relative importance of the estimated surplus may be gathered from a variety of comparative statements. For example, it constitutes 7.3 per cent of the aggregate resources for public investment under the third plan. If we exclude external resources and deficit financing from the aggregate, it accounts for 11.6 per cent of the domestic

resources. In relation to the additional tax revenues planned for the next five years it gains in importance, by constituting about a third of the former figure. The surplus is about a fourth of all tax surpluses, inclusive of both current budget surpluses and the additional tax revenues.

We shall concern ourselves with two questions in relation to the estimated surplus. Firstly, how does it compare with the current investment and profits position of the public sector undertakings? Secondly, is it likely to be achieved and, in the process of achievement, what are the distinctive problems to be faced and resolved? The first question will be discussed in this section and the second deferred to the next.

As a first step in assessing the relative importance of the expected surplus, we may express it as a return on the investments in the public sector incurred so far. The latter figure may be computed by covering the investments in power, industries and minerals, and transport (other than roads) and communications since 1951. Other expenditures, such as those on agriculture, irrigation, and roads, may be excluded because the returns from their development accrue in the shape of tax revenues rather than as surpluses from the public enterprises. To the total so obtained may be added an approximate amount of Rs.1,000 crores to represent the public investments, mainly in the railways and the posts and telegraphs, incurred prior to the first plan. The computation, which is admittedly

very rough, is as follows.

TABLE 4

PUBLIC INVESTMENTS

(in rupees crores)

	Pre-first plan	First plan ¹	Second plan ²	Third plan ³
1. Power		413*	445	1012
2. Village industries		-- 0	90	150
3. Industries and minerals		100 0)	870	1520
4. Transport and communications		397	1051	1162
T o t a l	1000	910	2981	4824

The total investment upto the beginning of the third plan may be computed at about Rs.5,000 crores. If we assume that the estimated surplus of Rs.550 crores during the third plan period is directly related to these investments, the surplus works out at the annual rate of 2.20 per cent on the historical figure of investments. If we include in the latter a quarter of the third plan investments in power, industries and transport, the percentage

* Represents Rs.153 crores of investment in power projects and half of the investment in irrigation and multi-purpose projects.

1 Review of the First Five Year Plan, p.19
2 The Third Plan, p.33
3 The Third Plan, p.59

of the estimated surplus falls to 1.8. These percentages refer to the direct capital at the level of the public enterprises, and are exclusive of any indirect returns accruing in other sectors of activity.

We may next compare the estimated surplus with the specifically known data of investment in individual public enterprises at the central and the state levels. The investments up-to-date at the central level may be estimated at about Rs.2,770 crores, which include Rs.1,559 crores of railway capital, Rs.130 crores on posts and telegraphs, about Rs.5,604 crores on the central public corporations and government companies, and Rs.441 crores of loan capital provided mainly by the government. The investments at the state level may be put at Rs.850 crores up-to-date, inclusive of Rs.754* in electricity (Rs.70 crores in the pre-first plan period, Rs.260 crores in the first plan period and Rs.460 crores in the second plan period, less the central capital of Rs.36 crores in Damodar Valley Corporation.), Rs.46 crores in road transport and about Rs.50 crores in other enterprises. (The last estimate is far from accurate and is heavily on the conservative side.) To the figures of company and corporation investments as in 1959-60, taken from the C.S.O.'s volume, may be added the investments during 1960-61 in order to get at the pre-third plan total. In the absence of accurate figures, we may put them at Rs.400 crores, considering

* Third Five Year Plan, p.398.

the C.S.O.'s estimates of capital outlay in the public sector ranging between Rs.458 and Rs.615 crores in the four years 1956-60.¹ The central-cum-state total may be rounded at Rs.4,020 crores - the difference from the earlier computation of Rs.5,000 crores being due to the application of certain expenditures in channels other than those specifically traced above - e.g., expenditures on industrial estates, ports and aerodromes. The figure of Rs.4,020 crores is probably the operative base on which the prospect of a surplus of Rs.550 rests. Now the surplus works out at 2.7 per cent per annum of the investments as of date; if a quarter of the third plan investments are included in the capital base, the surplus falls to 2.1 per cent. These percentages, it may be recalled, are over and above the normal interest and dividend charges which may be put not lower than, say, 5%.

Let us proceed with sectoral assessments of the surplus position. The estimated surplus of Rs.100 crores during the third plan works out annually at 1.3 per cent of the present capital outlay on the railways. Strangely a higher surplus, Rs.150 crores, was realised during the second plan from a lower railway capital, about Rs.1,000 crores, as at the end of the first plan period. If a fourth of the third plan investments in railways are added to the present capital outlay, the estimated surplus falls to about 1.1 per cent per year.

¹ Estimates of National Income, 1948-49 to 1959-60,
C.S.O., p.18.

The Planning Commission's explanation may be noted in this connection, that the estimate of Rs.100 crores is "exclusive of any additional resources that the railways might be able to raise during the Plan period by way of adjustments in fares and freights."¹ It is difficult to guess how much net surplus the railways will be able to raise in this way, in the face of two unfavourable factors in particular, viz., the rising costs of service and the progressively growing proportions of new and under-utilised track capacity. In addition, strong claims for low rail rates will be met from both the public and the private sectors in the name of the plan developments.

The estimated surplus of Rs.300 from the central enterprises other than the railways works out at about 5 per cent per year on the capital-cum-loan investment of nearly Rs.1,200 as of date. Allowing for the 1960-61 investments, we may put it slightly above 4%. It works out at 2.5 per cent if one-fourth the third plan investments in power, industries and minerals, and transport and communications (other than roads and railways) are included in the capital figure.

At the state level the estimated surplus of Rs.150 crores works out at 3.5 per cent per annum on the capital investments as of date. This falls to 2.6 per cent if a fourth of the third plan investments in power, industries and minerals, and transport, other than road building, are included in the figure of capital.

1 The Third Five Year Plan, page 97.

To sum up, it is the heavy railway investments characterised by low profit prospects, that mainly bring down the aggregate rate of capital formation in the public sector. Secondly, the public enterprises at the central level seem to be more capable of earning a surplus than those at the state level if we go by the estimated figure of surplus. Thirdly, while the overall surpluses estimated are too low to hope for, it appears reasonable to suspect that they may prove to be too high to get. The explanation for this view will be found in the next section.

An interesting aspect of the surpluses estimated at the state level is that, as we examine the break-up of the figure of Rs.150 crores among the states, the shares of the different states seem to be randomly diverse. Neither there is any consistent relationship between investments and estimated surpluses in the different states, nor is any correlation found as between the additional tax resources and public enterprise surpluses planned by the different states. For example, the estimated surplus works out at 27.2%, 49.3%, 41.7%, 25.5% and 25.8% for Kerala, Madhya Pradesh, Madras, Mysore, and Punjab on their capital investments (mainly in electricity and road transport). The surpluses in relation to the total plan resources of the states and in relation to the additional tax resources are indicated in the following table to illustrate the widely heterogeneous role of public enterprises as a source of capital formation at the state government level during the third plan. The point of interest is that the

inter-state disparities in these two relationships of public enterprise surpluses do not arise merely from - or correspond to - the differences in the quantum of public investments between one state and another.

TABLE 5

PUBLIC ENTERPRISE SURPLUS ESTIMATES AT STATE LEVEL: 1961-66

State	Surplus as % of total resources	Surplus as % of addition tax resources
Andhra Pradesh	5.90	11.70
Assam	10.30	21.25
Bihar	10.34	24.60
Gujarat	9.02	37.93
Jammu & Kashmir	9.23	15.00
Kerala	16.55	41.74
Madhya Pradesh	10.53	20.42
Madras	34.75	78.00
Maharashtra	4.27	18.08
Mysore	11.81	30.95
Orissa	6.43	7.83
Punjab	16.91	41.00
Rajasthan	2.50	6.25
Uttar Pradesh	6.67	8.99
West Bengal	8.56	19.25
T o t a l	10.50	24.37

Source: Third Five Year Plan, page 118.

4. THE IMPLICATIONS OF THE ESTIMATED SURPLUS

Let us turn to the question whether the estimated surplus of Rs.550 crores is easy to realise during the third plan period and what implications the attempts to realise it are likely to have.

The targeted surplus works out at Rs.60 crores a year from the central public enterprises. The current rate of profitability of 37 undertakings examined earlier is roughly 3.2 per cent on capital (1959-60) or 5.6 per cent if profits before taxation¹ are considered. (The surplus, it may be noted, is envisaged as the non-tax and non-interest/dividend income from the public enterprises.)

It has not been easy to secure correspondingly detailed figures for the state enterprises. The road transport enterprises are profitable, whereas the major sector of investments - in electricity supply - has not made reasonable profits yet. For example, the profit as a percentage of capital was -1.11, -0.44, and -0.28 in Bombay, Kerala and Madras in 1957-58; 0.27 in Mysore in 1958-59; -1.74 in Madhya Pradesh in 1955-56; and -0.78 and -0.58 in Punjab and Assam in 1959-60. The experience of the State Financial Corporations is similarly poor in most states.

1 The figures shown as profits before taxation in the summary tables of the C.S.O.'s volume are not invariably so in every case.

The first implication of the estimated surplus is that, over and above all costs, taxation and interest or dividend on the investments (whether in the shape of loans or capital), Rs.60 crores should be earned annually out of an aggregate investment (inclusive of capital and loan) of about Rs.1,300 crores as of date in 49 enterprises - the 37 enterprises examined above, the nine currently incomplete enterprises, Life Insurance Corporation, Reserve Bank of India, and State Bank of India. The rate works out at 4.5 per cent on the investments, after the interest and/or dividend is met. With the widest allowance^w for errors of computation of the investments, the surplus aimed cannot be lower than 3 per cent of the investments. This by itself is not surprising as an aspiration. The private sector (as represented by the 1,001 companies of the Reserve Bank's sample) retained Rs.129 crores of profits, while distributing Rs.239 crores of dividend during 1955-59; in other words, the re-invested surplus stood slightly above half the level of the dividends. Such high potentiality of capital formation was derived essentially from the fact that the companies earned profits which, before taxation, worked at 27.4 per cent of capital or 16.5 per cent of capital plus reserves. The corresponding figure of profits before taxation^{was} 5.6 per cent in 1959-60 in the case of the 37 public enterprises examined above. It is against this unfavourable background of profitability that the prospect of the estimated surplus is to be judged.

The estimate has the value of clearly indicating to the public enterprises the government's decision that their financial performance must approximate to an overall 8-10 per cent of all invested funds on an average. This should set at rest the earlier phenomenon of unclarity as regards the profit targets of the public sector.

Since the surplus estimate operates almost as an axiomatic basis of financial motivation in the public sector, let us examine its further implications in detail.

If we expect every public enterprise to give an adequate financial account of itself, the primary requisite will be for the profit rate to be stepped up from its present overall level of about 3.3 per cent to at least 5 per cent in the first place and then by another 3 per cent for the sake of capital formation. It will be realistic to give due weight to the fact that to the extent of shortfall of current profits by at least 1.7 per cent on capital, the 37 public enterprises in full operation, examined above, are imposing an annual burden of about Rs.4 crores on the rest of the economy, apart from placing on it the responsibility to find the funds for their expansions, takes place either through positive subsidisation and cash payments to a public enterprise, as in the case of the Hindustan Shipyard Ltd., or through a non-receipt of dividends, in such cases as Hindustan Antibiotics Ltd. and Hindustan Aircraft Ltd. It is from this state of annual public subsidy that the public enterprises should reverse their position in the next five years into one of offering substantial resources for development purposes - probably for

their own individual expansions.

At the next stage of the argument we do not have reasonable data yet to suggest how much of profit will be attainable in the case of the currently incomplete enterprises, such as Hindustan Steel Ltd., Neyveli Lignite Corporation Ltd., Heavy Electricals Ltd., Hindustan Chemicals and Fertilisers Ltd., Indian Oil Refineries Ltd., Heavy Engineering Corporation Ltd., Indian Oil Company Ltd., and Damodar Valley Corporation. These constitute the heavier segment of the public sector outlays. For example, their figure of capital plus loans is more than half the total investments in all central public enterprises, other than the railways and the defence factories. The Planning Commission specifically cited "iron and steel, fertilisers, refineries, oil companies and posts and telegraphs" while estimating a surplus of Rs.300 crores from the central government enterprises. The minimum expectation is, therefore, to be that every one of these enterprises will endeavour to earn between 8 and 10 per cent on the investments.

An anomaly sprouts at once. An amount of Rs.300 crores is granted by the government as an interest-free loan to Hindustan Steel Ltd. The rationale of the grant can only be the inability of the Company to earn adequately for meeting the costs of capital employed by it - at least in the immediate future. If this is a reasonable financial calculation to make - and it has already been made, it appears doubtful whether the expected 8-10 per cent, will accrue at the level of Hindustan Steel Ltd., perhaps the heaviest capitalised single undertaking in the public sector, apart from the railways. The annual

The annual charge of about Rs.15 crores, at 5 per cent on Rs.300 crores, is shifted from Hindustan Steel Ltd. to other public enterprises (or residually to the tax payer). To assume that the rest of the public sector will be able to compensate for this magnitude of non-earning on the part of Hindustan Steel Ltd. may amount to a heroic estimate of far higher surplus accruals than 8-10 per cent from the other public enterprises.

It follows that, if the estimated surplus is really sought to be realised, the public sector operations will be characterised by a highly heterogeneous pattern of inter-unit financial results, in the sense that some will contribute relatively high proportions of the overall surplus target than the others. It is true that in any economy profit diversity among enterprises is probable at any given unit of time; but what happens in this case is that the consumers of certain enterprises pay relatively high prices in order to subsidise the consumers of other products, not because the latter are known to be worth subsidising on social grounds, but because the latter enterprises have proved to be unprofitable and lack the capacity to improve or, alternatively, to liquidate themselves. It is possible, therefore, that a clash will arise, unless its identification is considered too refined a luxury, between the needs of realising the overall surplus and the relative merits of different groups of consumers. This has a relationship to the principles of pricing to be adopted by an individual enterprise in the public sector and will

be considered in chapter three.

It is likely that, because of the need to realise the estimated surplus, demands may arise for the assumption in the public sector of certain profitable activities currently undertaken by the private sector. The possibility of extensions being permitted in the activities of the State Trading Corporation of India Ltd. is a case in point. Apart from the merits of such nationalisation, the point that deserves clear appreciation is that the additional profits so realised in the public sector are merely transfers from the private sector and do not make a difference from the macro angle of the total resources for the plan. A shift of private resources to the public level of capital formation implies a corresponding cut in the resources for the planned developments in the private sector.

In conclusion certain facets of public policy relevant to the realisation of a high surplus from the enterprises may be outlined.

(a) There is yet no machinery to assess the propriety of whatever inter-unit diversities do obtain in the financial performance of the public sector. As these are likely to grow in the future, it is necessary to provide for an expert examination of whether an existing pattern of inter-unit/consumer shifts of benefit is justified and whether, in the case of a public enterprise which has to be subsidised, the subsidy is to be earned by some other public enterprises or derived from the general exchequer. The Public Enterprise Commission

~~Commission~~ suggested in the next chapter will be an appropriate agency for dealing with these questions.

(b) Since the realisation of the estimated target will by no means be easy and since inter-unit financial diversities are likely to be aggravated, it is necessary to promote a purposeful and rigorous enquiry into the profit potentiality of each, particularly low-profit, undertaking. The main object should be, not to explain away a recorded deficit or low return, but constructively to explore the ways of attuning the enterprises to the third plan maxim of earning a surplus.

(c) The surplus target implies the conferment of autonomy on public enterprise managers, to the extent that it is a means of improving efficiency. We shall examine the question in the last chapter in so far as it relates to the streamlining of the financial organisation of public enterprise.

(d) In order to be consistent with the aim of a surplus from the public enterprise the concept of social returns as an plea or excuse for low profits has to be subjected to strict criteria. More fundamentally the question takes the shape of whether we can afford the present pattern of investment projects consistently with the estimated target of surplus. There is no doubt that the development requirements of the country justify the surplus target; on this ground an attempt has to be made to put the investments to the most profitable use possible. If in this process we fear that damage is being done to the very desirable accumulation of indirect returns or social economies, let us, for consistency's sake, set up a limited target of surplus instead of the

present one. Undoubtedly the choice between the investment pattern and the surplus potentiality is a difficult one; even more significantly, an irrevocable commitment underlies the third plan, namely, that there shall be a certain pattern of investments biased in favour of the immediately low-yielding projects, while simultaneously there shall be a reasonably high capital formation for the very purpose of developmental expenditures.

D. CONCLUSION

To sum up: the profitability of the public sector undertakings has so far been relatively low, though a clear decision has now been made in favour of substantial capital formation at their level. Though practical difficulties may limit the full realisation of the estimated capital formation, effort must be made promptly to set the public sector on a propitious footing. This is particularly necessary for two reasons. For one thing, increasing proportions of the nation's investible funds are being used through the medium of the public sector; hence the responsibility devolves on the government for ensuring that no gains of capital formation otherwise realisable have been lost due to this institutional decision on investment. Further, there has been a heavy borrowing from abroad in recent times. About 30 per cent of the public sector investments under the third plan (Rs.2,200 crores out of Rs.7,500 crores) will come from external assistance. This by itself is not wrong; but its propriety essentially rests on the way in which the capital resources are employed. This, therefore, leads us to the

inevitable conclusion that for the long term solvency of the national economy a reasonable level of profitability in the public sector is to be unequivocally ~~built up~~. Realised.

It seems appropriate to conclude the discussion with Professor J.K.Galbraith's observation: "If I had to lay down a measure for performance for the publicly-owned corporation in the developing country it would be the earnings that it is able to put into its own expansion The most successful firm would be the one which by its efficiency and drive finds the earnings that allow it the greatest growth".¹

5. THE BRITISH EXPERIENCE

Perhaps it is useful at this stage briefly to review the British experience in the field of public enterprise profits. Legislative definition of the profit objectives of the British public enterprises has mainly taken the shape of requiring them to earn not less than is sufficient to cover the costs including interest on capital, on an average of good and bad years. Though ^{as} almost limitless/high profit is permissible under this

¹ Professor J.K.Galbraith's address on "Public Administration and the Public Corporation" at the Indian Institute of Public Administration, New Delhi, on 25th of August 1961.

provision, the general attitude of the boards seems to have been in favour of "break-even" and the general experience has been one of low profits. The following figures indicate the relative financial performance of the public corporations in the British economy during 1959. Table 6 indicates the net income of the undertakings (after depreciation) as a proportion of their net assets (after depreciation); and columns 2,3, and 4 of Table 7 respectively show the saving, the capital formation, and the excess of saving over capital formation in different sectors of accrual.

TABLE 6

NET INCOME OF BRITISH ENTERPRISES (1959)

	Net income as % of net assets
Manufacturing industries	14.9
Iron and steel (55 companies)	13.3
National Coal Board	1.6
Gas Council and Boards	3.3
Electricity (B.E.A., C.E.A., E.C., and Boards)	5.6
South of Scotland Electricity Board	4.4
North of Scotland Hydro-Electric Board	3.9
British Transport Commission	- 1.3
British European Airways	8.6
British Overseas Airways Corpora- tion	3.9
Port Office	8.6

Source: The Financial and Economic Obligations of the
Nationalised Industries, H.M.SO., Cmd. 1337,
page 12.

TABLE 7

SAVING AND CAPITAL FORMATION IN BRITAIN (1959)

(in £ million)			
1	2	3	4
Saving	Capital formation	Excess of	
		2 over 3	
Persons	1,254	840	414
Companies	2,060	1,480	580
Central Government	402	157	245
Local Authorities	177	569	-392
British Transport Commission	- 35	171	-206
Coal, Gas and Electricity industries	190	524	-334
Air Corporations	13	27	- 14
Port office	70	86	- 16
Other Public Corporations	15	49	- 34
TOTAL	4,146	3,903	243

Source: The Financial and Economic Organisation of the Nationalised Industries, H.M.S.O., cmd. 1337, page 13.

The public corporations have depended substantially "on the savings of others to finance their investment"¹. This is an uncomplimentary feature, since the industries concerned are established ones which normally should be as able, along with the other industries in the country, to find reasonable internal resources for their development. The electricity supply industry has alone been able to plough back substantial amounts; it found about 42 per cent of its capital expenditure from internal financing during the decade 1948-58 and has tried to hold "a fair balance" between borrowings and internal resources.²

Two points may be noted at this stage, viz., that there are special reasons for the poor financial performance of the public corporations in Britain and that the government has clearly decided to seek to improve the position. Among the factors specially responsible for low profits may be mentioned: (a) the public utility character of most of the public corporations, accompanied by the tradition of low prices, (b) progressively growing competition, (c) inability of the contracting industries to undertake appropriate financial re-organisation (d) the public expectation of cheap services and (e) "the onerous national and non-commercial obligations which the Boards are expected to carry".³ The first three factors are directly

1 The Financial and Economic Obligations of the Nationalised Industries, H.M.S.O., Cmd. 1337, p.5.

2 Finance for Power, The Electricity Council, 1960-61, p.6

3 Ibid., p.4

related to the economics of the industries concerned; while the last two depend on external considerations, no less important, however.

Reference may be made to the recent White Paper containing the government's proposals to ensure that the public corporations ~~operate~~ "are organised and administered efficiently and economically". The object is to enable them "to make the maximum contribution towards the economic well-being of the community as a whole"; and it is clearly held that, though the industries have obligations of a national and non-commercial kind, they are not, and ought not, to be regarded as social service absolved from economic and commercial justifications". Reviewing their financial position, the government has taken the view that "their financial performance has generally fallen short of these hopes."¹

The government's new proposals do respect the practical fact that the commercial and non-commercial conditions of the public corporations are not uniform; hence the financial canons of performance applied to them will not be rigidly uniform. Assessments of profit propriety and investment eligibility will accordingly, be somewhat unequal in the different cases.

The Indian situation is more complicated in many ways. (a) The public enterprises are many in number and call for meticulous individual financial assessments. (b) They cover several categories of industries, besides public utilities. (c) Many of them being newly established, we lack the convenience

¹ Op.cit., p.4

of alternative data for verifying their cost and profit potentialities. (d) Most of the central and the more important of the state enterprises enjoy significant degrees of monopoly power. (e) Finally, working under the peculiar needs of an under-developed area, they are susceptible to unclear motivations, economic and political.

The relevance of these considerations will be clear in the course of the next chapter.

APPENDIX 1

CLASSIFICATION OF PUBLIC ENTERPRISES BY RATE OF PROFIT (1959-60)

I Industrial undertakings completed and in full operation

1. Zero per cent or lower

1. Indian Rare Earths Ltd.
2. Hindustan Salt Co.Ltd.
3. Bharat Electronics Ltd .

2. 0 - 1 per cent

1. Nahan Foundry Ltd.
2. National Newsprint and Paper Mills Ltd.
3. Orissa Mining Corporation Ltd.
4. Hindustan Shipyard Ltd.

3. 1 - 3 per cent

1. Praga Tools Corporation Ltd.
2. Sindri Fertilisers & Chemicals Ltd.
3. Hindustan Aircraft Ltd.
4. National Coal Development Corporation Ltd.

4. 3 - 5 per cent

Indian Telephone Industries Ltd.

5. 5 - 10 per cent

1. Hindustan Machine Tools Ltd.
2. Hindustan Insecticides Ltd.
3. National Instruments Ltd.
4. Hindustan Housing Factory Ltd.

6. 10 per cent and above

1. Travancore Minerals Ltd.
2. Hindustan Antibiotics Ltd.
3. Hindustan Cables Ltd.

contd...

II Commercial, financial, general development,
and miscellaneous undertakings

1. Zero per cent and less

1. Export Risks Insurance Corporation Ltd.
2. Indian Handicrafts Development Corporation Ltd.
3. Central Warehousing Corporation
4. National Research Development Corporation Ltd.
5. Eastern Shipping Corporation Ltd.
6. National Small Industries Corporation Ltd.
7. Rehabilitation Industries Corporation Ltd.
8. National Industrial Development Corporation Ltd.

2. 0 -1 per cent

1. Air India International
2. Indian Airlines Corporation
3. Western Shipping Corporation Ltd.

3. 1 - 3 per cent

National Projects Construction Corporation Ltd.

4. 3 - 5 per cent

1. Posts and Telegraphs Department
2. Refinance Corporation for Industry Ltd.

5. 5 - 10 per cent

Ashoka Hotels Ltd.

6. 10 per cent and above

1. State Trading Corporation Ltd.
2. Orissa Road Transport Co. Ltd.
3. Industrial Finance Corporation.

CHAPTER TWO

THE PROFIT CRITERION

Briefly the reasons for the generally low level of profits in the public sector may be classified into two categories: (a) the enterprises are not able to make high profits; or (b) the enterprises are not desired to make high profits. Inefficiency, either in a competitive or in a monopoly market, and the handicaps of gestation are among the major causes of profit inability; whereas the hope of indirect returns is the main reason why high profits may not be desired to be earned. What appears to be governmental indecision on high profit targets on the part of some public enterprises may be traced to the concept of indirect returns yielded by them.

This chapter is devoted to a discussion of the indirect returns expected of public enterprises. We shall consider four aspects of the concept: (a) the exact connotation of indirect returns, (b) the qualifications to the concept, (c) the operational implications of the concept and (d) the administrative framework for its effectuation.

1. THE CONCEPT OF INDIRECT RETURNS

To the principle that a public enterprise shall earn adequate or high profits there is the heavy qualification that the concept of returns has to be different from that under private enterprise and understood in terms of both the direct returns of profit, which a private investor seeks, and the "indirect returns", also termed as "social returns" or external economies, which are not reputed to constitute a powerful aim of private enterprise. There are two characteristics of

private enterprise in the context of profit-making: (a) it operates on the maximal principle, by and large; and (b) it proceeds in terms of direct returns in the main. It is in the latter respect that the motivation of public enterprises needs to be different, their performance being geared to the maximisation of not only the direct but the indirect returns, or sometimes not the direct but the indirect returns. A public enterprise may, therefore, be permitted to aim at maximum profits, as in the case of a private enterprise, only where the difference between its social productivity and private productivity is nominal, whereas it may be asked to earn above full cost but below the level of maximum profit, where the social returns are of some significance; and where the social returns are estimated to be considerable, it may be allowed to operate below full cost.

On the other hand, the maximal principle by itself is not inapplicable to the public sector. Its significance is three-fold. Firstly, all returns, direct and indirect, present and future, tangible and intangible, and economic and non-economic, ought to be considered; secondly, the composite returns ought to be at a maximum, under a given set of socio-political conditions; thirdly, the quantum of its returns ought to stand comparison with that in the rest of the economy. Thus the consideration of "the ratio of net results to total costs", to use Professor Jan Tinbergen's words,¹ is imperative, though this includes "indirect and secondary costs and returns" as well.

1 Jan Tinbergen, "The Relevance of Theoretical Criteria in the Selection of Investment Plans," Investment Criteria and Economic Growth, Centre for International Studies and Massachusetts Institute of Technology, p.4.

The idea may be diversely expressed. For instance, it is observed in a recent U.N. bulletin that "the formal criterion in the determination of investment allocation is the equating of long run marginal social profit of investment in different sectors, or in other words, the maximisation of total net increment to the national product wherever accruing, directly or indirectly".¹

The common element of these generalisations is that the public enterprises ought to be an effective agency in making the maximum possible contribution to the national income, or to national welfare which is a wider concept.

Indirect returns may be considered under three broad heads: (A) the gestation phenomenon (B) secondary benefits, and (C) distributional effects.

(A) The gestation phenomenon: It is well known that certain basic industries come to full fruition long after the investment process commences; this becomes a problem calling for public policy because of the high capital invested in the activities concerned. The causes of long gestation are, firstly, that the process of providing the minimum, and certainly the full, fabric of production or selling capacity takes time and, secondly, that the stimulation of demand sufficiently for the capacity set up takes time. The argument can, therefore, be easily built up that, wherever such an enterprise is ⁱⁿ the public sector, it deserves the concession of a low profit target, ^{in view of the returns lying in the future.} Several examples are possible from the Indian conditions. The Damodar Valley Corpora-

¹ Economic Development and Planning in Asia and the Far East, Economic Bulletin for Asia and the Far East, Volume VI, No.3, November 1955, page.51.

tion has a statutorily recognised gestation period of 15 years, during which the no dividends are expected and the deficits are allowed to be capitalised;¹ the Neyveli Lignite Corporation Ltd., is likely to emerge into full operations some seven years after its inception,² and though the first products of the Heavy Electricals Ltd. set up in 1956 came out recently in 1961, full production is anticipated in the first phase by 1965, in the second phase by 1967, and in the third by 19...

This is a fairly simple and limited argument; for the subsidy, or stipulation of a low profit target, is required as well as justified in the short run, on the assumption that full utilisation, leading to maximum economies of production, will be achieved in course of time. In fact an appropriate device of dividend equalisation reserve can be of help, the initial losses being accumulated till the subsequent profits wipe them out. This provides for financial self-balancing over time in the accounting sense, though the necessary advances of cash in the initial period are made continuously by the government. Unfortunately the actual arrangements in several cases deviate widely from the principle of a dividend equalisation reserve. For example, the Damodar Valley Corporation's capital account

1 Section 39 of the Damodar Valley Corporation Act lays down that "for a period, not exceeding fifteen years, from the establishment of the Corporation, if the Corporation runs in deficit, the interest charges and all other expenditures shall be added to the capital cost and all receipts shall be taken in reduction of such capital cost."

is being inflated, instead of the initial losses (apart from mere interest on construction capital) standing in a suspense account capable of being wiped out by the future profits; and the interest-free loan of Rs.300 crores to Hindustan Steel Ltd. obviates the need for the carry-forward of the initial costs of gestation for subsequent recovery.

Under a slightly different version of the gestation argument, an almost permanent subsidisation or stipulation of a low profit target, seems justified. If it is decided that a basic overhead shall continuously be created in excess of need, in order that the over-supply of the outputs or services concerned will operate as a deliberate incentive for other (beneficiary) activities, the public enterprise producing such outputs or service stands permanently within the precincts of the gestation phenomenon, though the argument applies, not to its entire range of operations, but to the fringes of capacity traceable to deliberate public decision. To distinguish between the concept of financial self-balancing over time and the concept of a permanent over-provision of capacity helps us in steering clear of such confused arguments as seek to justify the subsidisation of the entire electricity or railway industry.

(B) Secondary benefits: These refer to benefits other than the very establishment of the activity in question, and may be either temporary or permanent. The temporary benefits are of different kinds, and the relative value of each of these differs from country to country and from time to

time¹. The employment provided for the constructional workers is of particular value under conditions of widespread unemployment; however, if the areas in which the outlays are located are not be characterised by an adequate labour supply; complications develop which weaken the prima facie claims of employment opportunities². To ensure the minimal pressure on foreign exchange resources is a significant desideratum during a period of disequilibrium in the balance of payments³. Or, the non-urban location of economic overheads or industrial estates may be accorded priority under policies oriented to the rejuvenation of the rural sector.

The immediacy of (certain) temporary advantages ought not to prevent us from weighing them against the consequential losses possibly suffered in the long run context of economic prosperity. The utilities created by the investment decisions

- 1 The U.N. Bulletin cited earlier indicates wide diversities in the translation of the general projects of economic policy into more precise objectives in the different countries of Asia and the Far East, (p.5).
- 2 See Professor K.N.Raj's analysis of the manpower problem in the Bhakra Nangal Project, Some Economic Aspects of the Bhakra Nangal Project, p.83.
- 3 For instance, addressing the Central Advisory Council of Industries on the 28th of October 1961, the Minister for Commerce and Industry - "called upon individual industrial units not to direct their investment towards an expansion of output which could be sustained by higher levels of imports of raw materials and components but towards installation of such plants as would make a sizeable reduction in their requirements of imports". (Reported in The Hindu, 29th October, 1961.)

ought to be such as are of value in themselves in the long run; what is equally important, investments dependent on temporary values ought not to run into an undue economic rigidity vis-a-vis subsequent developments; for example, a railway line built in an area which has no reasonable chance of eventually self-supporting development, tends to pull industrial location towards its area. The vital point for emphasis in an under-developed economy characterised by scarce resources is that the funds allotted to an enterprise that does not yield commensurate direct returns are funds wastefully withdrawn from higher prospects elsewhere. The opportunity costs of resources such as capital and utilisation of foreign exchange, are of particular significance for India. Hence the need for careful assessments in admitting such claims as the provision of constructional employment.

Secondary benefits of a permanent nature constitute a stronger reason for the continuous subsidisation of a public enterprise. The benefit stream may be analysed in the following terms.

(A) Benefits of direct employment: The category of benefits bordering on distributional aspects will be deferred for later consideration. In describing the other benefits we may commence with two aspects of really semi-permanent significance. In the first place, the wage incomes improve the living standards of the workers and cause an increase in their productivity. To the extent that the benefits of increased productivity are reflected in the cost structure of the industry concerned, the need for subsidisation is correspondingly reduced; thus the subsidisation is necessary, not in the

long run, but in the short run. To the extent that the beneficial results of improved productivity shift to other activities as a result of labour mobility for one reason or another, the industry yields benefits to other sectors of activity, and these may be considered as its external economy. Here the case for its continuous subsidisation stands undiminished. Secondly, an industry, in the course of its demands for such inputs as water, electricity, transport, industrial education, housing and social amenities, contributes to the emergence of conditions for the optimum production of outputs in those areas; the benefits of low price at which these products and services are supplied, accrue not only to the industry in question, but to other (mainly industrial) consumers. This is a case of complementarity of demand which operates to the advantage of all the demanders. Wherever an industry occupies a major place in the scheme of such complementary demands, the external economies traceable to its operations are likely to be significant.¹

Here again the need for subsidisation may be initial and not permanent, in that the producers of the inputs in question are likely, other things being equal, to operate under normal (and economical) conditions of demand and supply, and produce on an optimal scale in course of time.

1 An interesting example is the Oil Refinery at Visakhapatnam, whose heavy demand for water has yielded to many others the advantage of a plentiful supply of water.

(b) Other secondary benefits: Of special significance in the category of the really permanent benefits is the fact that a basic industry gives rise to the establishment of several subsidiary activities which benefit from the former's operations. The rapidity and the success with which these establishments can rise as well as flourish depends, to no small extent, on the low prices at which the basic industry operates. In fact there may be several indirect ways, other than the low price, of making the subsidised benefits available to the dependent activities. Examples of social benefits belonging to this category are plentifully available - the Tennessee Valley Authority which attracted several industries by making power available at cheaper rates than alternative fuel prices; the Damodar Valley Corporation and the steel plant at Durgapur, which are both parental of such extensive secondary activities as are likely to convert the township into one of the biggest industrial cities of India within a short time, and the machine tools factory at Bangalore, from which a strong incentive for the development of several ancillary industries in the neighbourhood is derived.

A slightly different version of indirect benefits lies in the creation of demand for outputs of various kinds on the part of those who earn wages or salaries from the basic investment project. Some of these demands may constitute an adequate reason for the development of auxiliary industries and trades of a non-service category; of course service trades are more certain to develop in the area where the consumer expenditures are incurred. This is how new occupations emerge, with the additional advantage that a highly useful diversification in the occupational structure of population ensues in the area.

At this stage we may note that the indirect returns from a basic industrial investment are large in an under-developed economy¹ where the multiplier effects on secondary developments are certain as well as spectacular in magnitude, though their full stimulation takes time because of scarcities of requisite resources and skills. The longer the plan period conceived by the government, the more considerable the continuum of the stream of benefits over time; in fact at a certain stage a fairly arbitrary decision has to be taken on the evaluation of the benefits of a project in relation to its time dimension.

Another allied characteristic of an under-developed economy is that a majority of the basic investment decisions are at an elementary inter-sectoral level where the economist's role is not the only, or the most important, one. Though differences on the propriety of the pattern of inter-sectoral investments do exist,² once a broad decision emerges out of an inter-action of social and economic criteria, the internal allocation of a sectoral

1 "The degree of complementarity of investment projects and the divergence of social from private marginal product will be greater in an under-developed than in a mature, crystallized developed economy", "Programming in theory and Italian Practice, by Professor Paul N. Rosenstein - Rodan Investment Criteria and Economic Growth, page 24.

2 For example, Professor P.T. Bauer doubts the rationale of "the massive investment in the establishment of capacity in the heavy industries", for it is, in his view, "unlikely to promote development commensurately to its cost". Indian Economic Policy and Development, page 51.

investment among the projects which constitute the sector is of sufficient significance for the economist to insist on proper economic criteria. The question to be considered is not whether a project, whose direct returns, measured in terms of profit, are not high, is justified, but whether, on the additional ground of indirect returns, this is the best project that could be decided upon.

The direct returns being low and the indirect returns being high, is a characteristic of many basic investments in India. The practical purport of it is two-fold: We must choose the best investment alternatives whose total net returns are higher; and where the social returns of two investment decisions are approximately similar, or cannot reasonably be demonstrated to be widely dissimilar, we must be guided by their quantum of direct returns.

(C) Distributional effects: An important component of the indirect returns attributed to a public enterprise consists of the distributional effects flowing from its operations. Some of the returns enumerated earlier are themselves not without significance in the context of the re-distribution of the nation's divisible income; however, the present discussion relates to the more open chain of causation between public enterprise operations and income re-distribution. Broadly the argument is that, wherever the responsibility of the public exchequer for bringing about modifications in the income structure is accepted by Parliament, the public enterprise may be required to share in the implementation of the policy, and that, if low profits on their part are an effective or

inevitable means of effectuating such a process, public enterprises, either generally or individually, may be credited with distributional effects as an important indirect return, in lieu of which high direct profits may not be insisted upon.

The practical usefulness of the argument improves if we know the exact shape of the desired pattern (and of the less clear "desirable" pattern) of distribution into which the existing one is to be revised. In other words, this presupposes accurate knowledge not only of the groups whose incomes ought to be improved but also of the groups whose incomes may be disturbed through a deliberate reduction in this process; further it is necessary to know the ultimate overall effects of such changes in the income structure on the national economy, particularly in the context of saving and investment. Knowledge in these respects seems to be less difficult, in a sense, in an under-developed economy such as the Indian, than in advanced economies; for there exist three conditions that contribute to such knowledge: viz., (a) there is widespread unemployment, (b) there are severe income disparities among the people and, (c) the socialist pattern of society is an axiomatic edifice of policy. These conditions enable us to take several quick decisions at what may be termed an elementary stage of redistributational programme; and value judgments on conflicting redistributational effects seem to be a fairly deferred problem. However, the adverse effects of an extremely re-distribution-oriented programme of economic policy on the investment quantum and on its causation of

current income flows are a serious problem to consider. It is, therefore, necessary on many an occasion to consider whether a re-distributional effect, desirable in itself, is to have priority over other considerations such as capital formation. Where the former is not inconsistent with other important desiderata, the aims of policy tend to be clear.

The distributional effects are two-fold: (a) personal and (b) regional, referring respectively to the effects on personal incomes and those on the aggregate incomes of individual regions. Further, they may be immediate or eventual, depending on whether the income results are enjoyed directly by the employees and the consumers or indirectly by those of the secondarily stimulated activities.

(a) The personal aspect: This may be examined separately in respect of (i) the employment effects, (ii) the price effects and (iii) the eventual effects.

(i) The employment effects: Let us work out the distributional benefits flowing from direct employment in a public enterprise. (The question of constructional employment has already been discussed.) Beneficial effects may arise in three ways.

(1) A losing undertaking may be nationalised so that the loss of incomes through retrenchment may be avoided by permitting it to operate at a low profit target. The assumption implied in this contention is that the workers concerned have no alternative channel of employment. Labour immobilities strengthen the assumption.

(2) Surplus labour may be carried on rolls, either deliberately or innocently. The Hindustan Shipyard and the Sindri Fertilisers are interesting examples.

(3) Investment projects may be deliberately decided upon with a view to providing the employees with income opportunities. The proposed shipyard at Cochin may offer itself as an example, though its rationale may rest on other grounds as well.

The argument derives justification from the assumption that a given public enterprise is the best means of providing income benefits to the employees. It is possible, in an under-developed economy with plentiful supplies of unemployed labour, to find investment projects whose direct returns are high in themselves and/or whose stream of indirect benefits other than the distributional effects is significant as well as coveted; and there may be a large number of investment projects to choose from, keeping the distributional benefits fairly neutral. Paradoxically there is reason to suggest that, along with the ease of redistributive decisions in an under-developed economy, the compelling dictates of other desiderata are themselves strong. It is where we assume labour immobilities that the choice among investment projects gets complicated, and narrowed, in that we cannot then assume neutrality of distributional effects, since a project located in a region of unemployment has more of these effects than another. Strangely the argument of distributional effect is weakened by the fact that the major investment projects in the public sector are so capital-intensive,¹ that the distributional benefits through the medium

of direct employment seem to occupy the fringes of the total stream of benefits.

More basic is the question whether the budget does not offer itself as a more appropriate agency of bringing about the desired distributional effects. It is particularly justified in being a more open method in genesis, subject to full parliamentary deliberation as to results.

There is a further complication, on grounds of theory. As against the distributional benefits flowing from a public enterprise run on low profit targets, there is the alternative possibility of programming appropriately directed welfare expenditures to be met from the profits earned by the public enterprise in the first place. Profits foregone under the former method are not necessarily and wholly enjoyed by the low-income groups; whereas profits earned under the latter method can be expended for their exclusive benefit.

(ii) The price effects: A low profit target may be considered admissible for a public enterprise if it is deemed desirable to enable certain or all consumers to enjoy the benefit of consuming the product at a relatively low price. This provides for re-distributional effects in the sense that a larger scale of consumption than otherwise is made possible and that whatever consumption takes place is made possible at a low price; thereby the consumers suffer a smaller cut than otherwise is necessary in their aggregate purchasing power and are left with an increased balance in the latter for acquiring more of other utilities than would otherwise be possible.

Decisions in this regard are easier wherever the social considerations involved are of the "obvious" kind, as in the provision of milk and foodgrains. Further, the decisions are easier when the result takes the shape of a general reduction in the price level than when it consists of inter-consumer discrimination through the price structure. In the latter case two problems arise: firstly, a decision is needed as to the classes of consumers deserving the benefit of low prices; secondly, an operational convenience in identifying the deserving consumers is pre-supposed and this is perhaps possible in some public utilities.

In the generality of cases above the level of such elemental provisions as milk, water, and housing, both the decisions on beneficiary - consumers and the identification of the distributional effects are weak on the whole. In an extreme case one can argue that the consumer of anything sold at a low price ^{enjoys a} benefit and that his benefit cannot be ignored as against a like benefit derived by the consumer of another low-priced product. (We are considering the inter-product question and not the merits of charging the poor consumers lower than the rich consumers.) Thus the almost intractable problem arises of adjudging the distributional effects of low-profit operations on the part of different public enterprises, such as those producing fertilisers, steel, machine tools and drugs. (For instance there is no reason why Hindustan Antibiotics Ltd. which sells medicines of use to the poor and the rich alike, should pursue a policy of high profits, while Indian Telephone Industries Ltd. and Praga Tools Corporation Ltd., earn low profits.) The inter-product

consumer assessments involved in such comparisons are bound to be arbitrary and, at some stage, politically inspired.

Further, it may be far from simple to follow up the chain of distribution effects flowing from the low-profit target of a public enterprise, and for an accurate picture we may have to undertake the difficult, if not impossible, task of identifying the eventual beneficiary who is not invariably the direct consumer of the low-priced product. Errors in such identification will lead to wrong conclusions, which, when politically inspired, may be dangerous at times.

The complexity of the problem suggested here may be illustrated by the contention in a recent Fabian pamphlet that the deficits sustained by the British public corporations represent "an annual subsidy to industrial and commercial users of nationalised industry products", who happen to "account for more than half the total" sales of the public corporations, or for at least twice as big as the sales to "individual consumers".¹ No tendentious inference of misplaced benefit is justified on the basis of such statistical facts; for it ought not to be forgotten that the eventual beneficiary of the low prices enjoyed by the immediate consumers, viz., the industrial and commercial users, may be quite different and may (as frequently as may not) really deserve the benefit.

¹ Nationalised Industries in the Mixed Economy, John Hughes, pp.9-10.

(iii) The eventual effects: These relate to the favourable effects on the national income structure caused by the secondary level of activities stimulated by an initial investment decision. For example, the operations of the National Small Industries Corporation Ltd. are such as do not lead to significant income re-distribution when the employees or the direct consumers of the undertaking are considered, but may lead to extensive activity on the part of the small scale industries dependent on it for low-priced inputs such as hire-purchase machinery. The good income effects on the persons engaged in these industries may be traced to the low profit operations of the National Small Industries Corporation Ltd., if we pursue the full chain of parentage. As another interesting example may be cited the State Financial Corporations whose low-profit (lending) operations do not really give rise to any direct distributional benefits but set in motion conditions for the creation of employment in medium and small scale industrial units depending on them for cheap finance.

The analytical distinction of the point may be gathered from the fact that, even where the distributional effects of a highly capital-intensive project may not be spectacular as suggested earlier, its low-priced operation may encourage a good deal of secondary activity from which desired distributional effects may emerge eventually. Of course the main problem is one of exact identification of the chain of causation.

(b) The regional aspect: The criterion of contributing to the income benefits of a particular region through low targets of profits on the part of the public enterprises is easier, both in conception and in application, than the distributional criterion in its personal aspect. However, two conditions ought to be satisfied. Firstly, the regions deserving deliberate benefits have to be identified and publicly declared as the eligible ones. The task is easier in some ways than the corresponding task of identifying the deserving classes of consumers; at the same time regional political pressures do complicate the decisions. Secondly, a public enterprise organised on the basis of regional autonomy has a fairer chance of conferring benefits on the declaredly deserving regions than one which is nationally organised. In the latter case diverse profit targets in different regions may be difficult to justify in the face of (often uniformed) demands for national uniformities in public enterprise operations. However, a nationally organised public enterprise which is able to withstand such demands happens to stand in an admirably strong position in shifting consumer benefits to the "deserving" areas from the others, for it can over-earn from the latter regions in order to subsidise the former. The Indian railways are an excellent example of this phenomenon.

2. QUALIFICATIONS TO THE CONCEPT OF "INDIRECT RETURNS"

In the practical implementation of the "indirect returns" criterion¹ we come across three kinds of difficulties: (a) computational (b) conceptual and (c) applicational.

¹ An interesting account of the direct and indirect returns of the Hirakud dam is contained in Economics of a Multi-Purpose River Dam - Report of an Inquiry into the Economic Benefits of the Hirakud Dam, by N.V.Sovani and Nilkanth Rath, Chapter VIII.

(a) Computational problems

In the first place it is not easy to gain either complete or accurate knowledge of the chain of results that flow from an initial investment decision. To what extent one may go legitimatel the imputation of results is a question that involves arbitrary judgments at some stage.

For example, should the decision on a railway project give credit to the employment opportunities in the raising of coal which the railway consumes? If it should, how do we decide about the producers of other inputs, such as sleepers and quarry stone? When several initial decisions are made simultaneously and several results accrue, the isolated imputation of specific results to specific investment decisions is impossible. Paradoxically the techniques of discovering the causal relationships between a project and its results are as inadequate in an under-developed economy as the need for their recognition is great. Arbitrary claims of social returns creep into the argument for conceding a low profit, or a deficit, target for a public enterprise. The primary need, therefore, lies in the refinement of the computational techniques, "even though fully quantitative comparisons of the direct and indirect costs and benefits of different projects will never be possible."¹

In any case it is impossible to establish that, as against a permitted figure of profit or an actual deficit, there is a compensatory magnitude of indirect returns traceable to the given

¹ U.N.Bulletin cited earlier, p.7.

investment project. The quantification of the indirect returns as an appropriate offset against the direct profits foregone ceases to be objective; and some may take the view that the offset is not a worthy compensation. The controvertibility of the case may be illustrated by the Estimates Committee's disapproving comment on the hire-purchase scheme operated by the National Small Industries Corporation Ltd. on a deficit basis.¹

Secondly, certain external economies are not amenable to statistical computation, in that they reveal themselves in qualitative and non-homogeneous terms such as improved health, enlarged leisure opportunities, and enhanced employment facilities through gains of better physique, technical and general training, etc. These are of no less importance in an under-developed economy than the more economic and quantifiable benefits; perhaps they offer a surer guarantee of growth in the long run.

Thirdly, the efficiency of computation is conditioned by an inertia of ideas, in that the administrative machinery concerned with the computation may not be sufficiently geared to the task of a comprehensive and impartial assessment of the external economies emerging from alternative possibilities of investment. The best example in the Indian situation is that the indirect returns of a railway project have so far been more easily recognised than those of road transport or port development; this runs counter to the optimal condition of an investment decision, indirect returns, viz., lies in a proper comparison among alternative possibilities of cost-benefit ratio.

¹ Estimates Committee, Report No.79 (1959-60).

(b) Conceptual problems

Conceptually the size of an indirect return depends on the period contemplated as intermediate between the investment process and its fruition, and is greater the longer this period. Thus a considerable sacrifice of immediate direct returns seems justified in the case of projects which are part of planning stretched over several five-year periods. In fact the principle of preparing a broad complementarity-oriented basis for self-sustained growth at a future date intensifies the gestation claims of a capital-intensive project. High value being placed on its returns in the distant future, immediate losses are suggested as an unobjectionable transitory need. It is on these lines of argument that the opportunities of adding to national income through the medium of rapidly yielding investment projects are wilfully foregone in India currently. Nevertheless, the flows of income currently foregone are as much of a social loss as the expected future gains constitute as a social return. To compare between the two is far from an easy task; and the extent to which the criterion of indirect returns in the long run should shift the investment bias from current gains to future benefits is a complex conceptual question. Though the interest rate can offer itself as a tool in providing the answer, the basic judgment involved essentially rests on a non-economic evaluation of the unit of time over which direct returns from an investment project can be permitted to be low or negative. To illustrate the point, should we launch an electricity project whose direct returns may be low for ten years but will be adequate later, or should we work on the criterion of low direct returns for 25 years or 15 years, hoping that over

such longer periods a stage of complete fruition of the investment concerned is likely to ensue? Incidentally, the longer the time unit envisaged, the lower the degree of responsibility with which an investment decision is made, despite absolute honesty in decision-making.

Another conceptual difficulty arises in the field of inter-project comparison of indirect returns. If investment decisions are to be based on the criterion of direct-cum-indirect returns, the priorities of investment are efficient only if we have a proper technique of comparing, not only the direct returns which it is easy to compare, but the indirect returns flowing from projects (often) of a different nature. For example, if the direct returns of a steel plant and a fertiliser plant are likely to be equally low, how do we evaluate their varying indirect returns in fixing investment priority? It is possible that, even where the projects compared are in different industries, there will be no way of weighing the series of benefits flowing from either investment, for example, benefits from low-priced steel and those from low-priced fertilisers. It is possible that, even where the direct returns of two projects are different, arguments can be built up in favour of the less profitable one by an over-assessment of its indirect returns. A close examination of certain electricity extension schemes confirms this view.

Sometimes extremely far-fetched claims of indirect economies are possible. An interesting illustration is provided by the argument in the Fabian Tract "Nationalised Industries in the Mixed Economy"; the heavy under-utilisation of the

British Railways is presented as an argument favouring their running "deliberately at an accounting loss".¹ In the extreme, this involves the direction of traffic to the railways, through a fictitious price mechanism, and a reversal of the forces of industrial activity, particularly location, from the free choice of mode by the transport user to compatibility with the railway interest. This illustration presents a conceptual danger of the argument of indirect returns.

Finally, there are difficulties in the field of inter-regional comparison of indirect benefits, especially where the regional transferability of benefits is limited, as in the case of many public utility projects. The major question is: how do we attach weights, for the sake of comparison, to the varying streams of indirect benefits accruing in two or more regions characterised by diverse socio-economic conditions? Apart from the inherent difficulty of quantification, a given result may be of varying value in the different regions. We come across this problem while determining investment priorities as between the multi-purpose projects in different regions. The slow tempo of the Nagarjunasagar Project and the non-inclusion of the Pochampad Project in the third plan are examples, in the view of the people concerned, of inaccurate assessments of indirect returns. The original proposal of Rs.59.01 crores of expenditure by the state government on the Nagarjunasagar Project during the second plan was reduced to Rs.32.2 crores by the Planning Commission.

1 "Nationalised Industries in the Mixed Economy, John Hughes (page 12).

This figure was raised in the last two years to Rs.37 crores, instead of to Rs.46 crores as strongly desired by the state government. The benefits foregone by such a restriction on expenditure were computed by the Estimates Committee, Andhra Pradesh Legislature, at 6.30 lakhs of acres under dry first crop, 8.00 lakhs under wet first crop and 4.50 lakhs under wet second crop by 1966-67. Had the tempo of Rs.59 crores of originally estimated expenditure in the second plan period been permitted, another 3.50 lakh acres could have been brought under food production by 1965-66.¹

There is no easy answer in this field, but objective attempts at the most plausible forecasts of the indirect returns of different regional projects are highly overdue in this country, if the criterion of direct-cum-indirect returns is to retain its meaning and if the unpreferred regions are to be convinced of the higher merits of the preferred regions on grounds of aggregate returns.

(c) Applicational problems

The indirect returns of a project, however conceived and quantified, have a varying significance over time; and a stage comes in the life of many a project when the accrual of indirect benefits cannot be considered as a continuing and significant justification for low targets of direct returns. This conclusion rests on two grounds. Firstly, the demands for the output in question become strong enough, in course of time, to

¹ Report of the Committee on Estimates, the Andhra Pradesh Legislature, 1960-61, on Nagarjunasagar Project, pp.24-28.

bear the full costs incurred in its production and supply, so much so that the initial condition of providing stimulation to the demands does not continue to prevail. Secondly, if the target of direct returns is gradually scaled up, the community is enabled to release the resources of subsidisation for use elsewhere. The points of initiation of economic activity in any country are continual in the time sense; and it is logical that the maturing projects should gradually promote themselves to the stage of fully realising their costs, if not of self-financing to some extent.

We, therefore, need to develop an appropriate concept of reversibility in the imputation of indirect returns over time. This is bound to be difficult when political pressures operate in the opposite direction.

3. SOCIO-ECONOMIC CLASSIFICATION OF PUBLIC ENTERPRISES

The financial complexity of the public sector arises from the need for the composite consideration of both the direct and the indirect returns while making investment decisions. Since the latter returns are not so objectively demonstrable as the former, the direct returns, or profit may be preserved as the basic guide to investment allocations and as a means of capital formation, of course with adequate allowance for the handicaps of gestation; and modifications may be worked out to provide for the criterion of indirect returns on the basis of well deliberated public decisions on the social desirability of foregoing the direct returns temporarily or permanently.

The primary requisite of financial assessments in the public sector is the socio-economic classification of the public enterprises, which roughly indicates the level of profit expectation that the community has in mind in relation to each undertaking. The classification is socio-economic because of the compositeness of the criteria involved - the direct and the indirect returns. It offers us canons of judgment on two important aspects of economic development: whether the performance of a public enterprise has been adequate, in terms of the profit expectations upheld by the community, and how the recorded results indicate the further investment eligibility of a public enterprise. In the absence of this two-fold evaluation, economic activity and investment decision cease to be objective and maximal in purpose.

The classification has several practical advantages. In the first place, the managers of a public enterprise will have a fairly clear range of profit target set for them and can adopt an appropriate managerial behaviour in attaining it. Secondly, the consumers know the nature of financial aims of an enterprise that qualify or limit their hopes of price reduction or output expansion. Thirdly, the tribunals charged with price control functions will gain from clarity about the expected financial results, otherwise they do not know how legitimate the profit results flowing from their control operations may be considered to be. Finally, Parliament finds it easy to obtain an overall impression on the working of each public enterprise.

There are three aspects of a purposeful socio-economic classification: (a) the classification, (b) the fixation of profit targets and (c) the alignment of profit targets on the time scale and the regional scale.

(a) The classification

All public enterprises do not present uniform characteristics on the relevant bases of (i) profit potentiality, (ii) historical circumstances, (iii) the tenure of gestation, (iv) traditional social expectations and (v) the stream of indirect benefits. It is rarely that the rate of profit on capital expected of an enterprise is exactly the same as that expected from another, when these criteria are accurately applied. For the two reasons of inaccuracies in applying the criteria and of the complexity of attempting at specific target fixation for every public enterprise, the classification may proceed in terms of broad categories; it is at this level that the will of Parliament or the nature of social expectation ought to be expressed. More definite enunciations of individual profit targets may be left to the Public Enterprise Commission (suggested in the next section.)

A tentative classification may be suggested in the following terms. Firstly, there are the public enterprises which are non-commercial rather than commercial in their major function, for example, the Indian Handicrafts Development Corporation Ltd., and the National Industrial Development Corporation Ltd. Secondly, there are the undertakings with an admixture of commercial and non-commercial functions, the former being the more dominant. Many public enterprises occur in this

category - for example, the electricity boards, the railways, the multi-purpose projects, and Life Insurance Corporation. Thirdly, there is the category of enterprises which are almost wholly commercial in nature, for example, Hindustan Machine Tools Ltd., Hindustan Antibiotics Ltd., and Fertiliser Corporation of India Ltd.

It is true that even within a category, for example, the multi-purpose projects or the railways, the conditions determining the appropriate profit targets may vary from case to case. Where the variations are severe and traceable to basic differences in the chain of causation of results, a few sub-categories may be erected. The rest of the differences can be provided for while adjusting the profit targets to the time and the regional scales.

(b) The fixation of profit targets

The value of the classification rests substantially on the differentials proposed in the profit targets of the different categories. These refer to the average targets over the long run. The theoretical framework presented earlier is of value in deciding on the differentials. Only those characteristics associated with the permanent causation of indirect returns should carry weight in conceding relatively low/profit targets for the categories of industries whose social desirability is deemed to stretch beyond the direct returns. Broadly, promotional activities and basic overheads such as the provision of water and transport service, deserve low targets.

(c) Adjustments to time and regional scales

It is at this stage that the special conditions of a public enterprise placed in a broad category of profit target may be given due consideration. Important among them are the period of gestation it is likely to require, any particularly unfavourable regional circumstances of supply and demand encountered (as in rural electrification) and, broadly, the phasing and pattern of helpful complementary developments in those areas of economic activity which are related to it either as a source of inputs and/or as a market for its outputs.

If the adjustments are properly conceived and arbitrary political pressures reasonably resisted, it is possible to arrive at varying periodical profit targets for each enterprise, normally in the ascending order, contributing to the realisation of its long-run average target of profit envisaged in the above section. Wherever possible, a set of adjustments may apply commonly to a few enterprises whose determining conditions are fairly homogeneous.

A tabular model of the suggested socio-economic classification is shown below, with the qualification that the actual values placed in the different boxes can never be claimed to be infallible. Their best defence is that they reflect a well deliberated pattern of socio-economic objectives under given conditions of social qualification to autonomous economic forces.

Public Enterprise	First 5 years		5-10 years		10-15 years		later	
	Per-	Regional	Per-	Regional	Per-	Regional	Per-	Regional
	cent-	varia-	cent-	varia-	cent-	varia-	cent-	varia-
	age	tion	age	tion	age	tion	age	tion

B. Predominantly/ Commercial:

E.g., National Coal Development Corporation Ltd.
 State Trading Corporation
 Electricity Boards
 Railways
 National Mineral Development Corporation Ltd.
 State Financial Corporations
 Central and State Warehousing Corporations
 Damodar Valley Corporation.

3. Enterprises with commercial functions:

E.g., Praga Tools Corporation Ltd.
 The Fertiliser Corporation of India
 Road Transport Corporations
 Hindustan Machine Tools
 Hindustan Steel Ltd.

There are a few points to note about the model. Firstly, the variations in the time scale are not likely to be significant in first category, i.e., enterprises with non-commercial functions; for at any given time their promotional^{or} otherwise budgetary characteristics are steadily the same, unless major changes in governmental policy occur. Secondly, while the profit targets for the first category may not even cover the interest on capital, those for the second are likely to be near about that level for sub-category A and slightly as are that level for sub-category B - and certainly so as time passes, and the targets for the third category are bound to be more openly geared to the maximal principle. Thirdly, the problem of public policy is one of fixing the limits to the low levels of targets in the first two categories and of fixing the upper limits in the case of the last category. The two aspects relate respectively to the protection of the taxpayer's interest and that of the consumers' interest.

4. THE ADMINISTRATIVE ASPECTS

Certain revisions are required in the administrative fabric governing the public enterprises if effect is to be given to the criteria of indirect returns and to the socio-economic classification suggested above. Primarily the public corporation Acts have to be improved in such a way (a) that they indicate clearly, in the case of each enterprise, whether it shall proceed entirely on business principles or under the ~~severe~~ qualification of government policy or direction, (b) that not only adequate provision is made for a governmental subsidy for the operations not conducted on business principles and under the dictates of autonomous managerial behaviour but the principal determinants of the conditions and the extent of the subsidy may be laid down, and (c) that the consumer has a fair chance of knowing the range of profits, especially the upper limit, which an enterprise is ^{or} entitled to aim at and against which can have no prima facie cause of complaint. The statutory framework, it may be recalled was, discussed in the previous chapter. In the case of the government companies the necessary changes need incorporation in the articles to the extent possible.

However well-designed, such statutory improvements are unlikely to constitute the whole, or even a reasonable, solution of the problem; for it is difficult to introduce in the statute detailed provisions dealing with all the conditions likely to be encountered in practice; and adjustments to the profits targets on the time and the regional scales can never be adequately comprehended by any well written Act. What

is necessary, therefore, is a supplementary arrangement, for which the Acts may provide sanction, under which the details of the profits question may be appropriately dealt with and provision made for a continuous and expert assessment of the performance of each public enterprise.

For this purpose a Public Enterprise Commission may be set up under the Ministry of Finance, enjoying the status of an expert semi-independent tribunal, with functions covering the allied fields of profits and prices.

Remarks on its functions in relation to pricing are deferred to the next chapter. As regards public enterprise profits the PE Commission may be entrusted with the following functions:

(a) To work out the socio-economic classification of the public enterprises: The Commission may proceed with the classification in consultation with the enterprise in question, the parental department of the government, and the consumer interests as far as they can be traced legitimately. The purpose is to ensure that the classification reflects the best possible combination of the commercial and the social expectations from the enterprise.

(b) To assist the Planning Commission in its decisions on investment allocation. Thereby the public can know what objective data have induced the Planning Commission to favour certain investment decisions, as against the rejected ones; and the Planning Commission itself will have the advantage of periodically comparing the original determinants of an investment decision with the actual results.

(c) To inform Parliament on the performance of every public enterprise: For obvious reasons Parliament is not able to get an exact perspective, not merely of the actual results of every public enterprise, but of the rationale of the high or low results achieved by any of them. The Commission will constitute the right kind of impartial agency in providing Parliament with an objective statement on the financial performance of the public sector undertakings.

(d) To isolate inefficiency from the compensation of indirect returns as a cause of low profits: One of the greatest dangers of the indirect returns concept in practice is that, while it is legitimately justifies low profits or deficits, We do not know how far the latter may be the result of inefficiency. The identification of inefficiency may be submerged in the vague notion that the enterprise in question has been deliberately marked out for low financial results. Unprofitability in lieu of indirect returns is different in principle from unprofitability arising from inefficiency. In the former case the effectiveness of the investment is realised somewhere else, whereas in the latter capital is simply ineffectively used, that is, more factors are used in the creation of a utility than are necessary. It is not illogical, nor uncharitable, to suspect that the seeds of inefficiency are inherent in a long-gestation phenomenon, the more so the greater the elements of indirect returns expected of the enterprise. The practical usefulness of the indirect returns argument depends on the efficiency of the machinery provided for discovering and checking inefficiency. The Public Enterprise Commission may, with the

help of cost accountants, the Comptroller and Auditor-General, engineers, and financial experts, try to isolate, as far as may reasonably be possible, the circumstances of managerial or technical inefficiency from the implications of the indirect-returns motivation while adjudging the low results in a given case.

The Public Enterprise Commission will not interfere with the autonomy of the enterprises. It will be useful really in the opposite direction, by enabling the managers to proceed on clearly laid-down financial targets; and wherever these are fixed low and low profits are realised in consequence, the managers will have the advantage that the public will realise^{ed} that the responsibility for the low profits is not theirs. In the absence of such an advantage, the managers of public enterprises making losses for legitimate reasons are illegitimately under public criticism or at least the fear of it.

The only circumstance in which the public enterprises may fear the working of the Commission is when the Commission is compelled to point out inefficiency, rather than indirect returns, as the cause of low profits. Neither this is the main function of the Commission, nor is such a finding likely to be frequent. In the few cases where the Commission's assessments do locate inefficiency the overall gains to the community are of greater significance than the risk of unfavourable reaction on the part of the managements concerned.

The Public Enterprise Commission does not curtail the prerogatives of Parliament. On the other hand, it helps

Parliament by fortifying the Estimates Committee, the Public Accounts Committee and any special committee on public enterprises with objective assessments of the recorded financial results of the enterprises. It will remain with Parliament to decide on its own whenever a clear departure is needed from the assumptions on which the Commission bases its calculations and assessments of the indirect returns and/or the translation of their implication into profit targets. Likewise it will be for Parliament to decide on its own whenever any special social values appear to it to deserve incorporation in the calculations.

The need for the Public Enterprise Commission indepentl; of the parental department of the government as well as its superiority over the latter in the matter of profit evaluations, depends on the same arguments as we are familiar with in regard to administrative tribunals.

The functions of the Commission are such that it may consist of an economist, an accountant, a financial expert and a person with established reputation in public affairs; and for the Commission to be able to act efficiently, adequate provision is necessary for its research machinery.

Conclusion

To conclude: The plea for profits on the part of a public enterprise should be qualified suitably by the quantum of indirect returns expected of it; and that the aim should be the maximisation of its final contribution to national income or national welfare.

Many of the indirect returns consist of a complicated series of chain effects, among which causal relationships are difficult to establish. The indirect returns are not easily quantifiable, and inter-industry as well as inter-regional comparisons are highly complicated. Sometimes the budget may be a preferable direct agency to the low profit policy of a public enterprise in realising given national ends of employment, income re-distribution and regional development.

As an operative rule, we may keep the direct returns as the basis and improvise appropriate qualifications for indirect returns while setting up investment criteria.

A socio-economic classification of the public enterprises, inclusive of the necessary adjustments to the time and regional scales, is necessary.

It is high-time that a Public Enterprise Commission was set-up to help in these matters. This, as prepared here, will neither interfere with the autonomy of a public enterprise nor usurp any parliamentary privilege. And it helps the Planning Commission in convincing the public that no included investment project is inferior to any excluded one.

CHAPTER THREE

PUBLIC ENTERPRISE PRICING

The discussion of pricing in the public sector, to which the present chapter is devoted, may commence with an analysis of the relationship between the profits policy and pricing. The distinctive features of pricing in the public sector will then be examined, in terms of the demand and the supply conditions, and in respect of the authorship of pricing. The role that prices have to play in the context of public enterprise operations will be reviewed next, emphasis being laid on the pricing unit within a public enterprise. Finally, we shall deal with the present practices of pricing and outline a desirable pattern of price control over the public enterprises.

1. PROFITS AND PRICES

The prima facie relationship between profits and prices is set by the fact that the target of profits fixed for an enterprise influences its prices; where the target is high, the prices are high, and vice versa. There are several qualifications to this simple relationship, however.

Firstly, it is possible for an enterprise to secure a given quantum of profit from several alternative levels of prices. This is due to the relativities between the supply and the demand curves in such a way that at more than one point on the scale of output the same net return is made possible. While, from the profits angle, the choice of output is a matter of indifference among the possible alternatives, from the pricing

angle the exact choice of output is of material significance; for with a given target of profit, large outputs and consumption are possible under certain choices of price as against small outputs and consumption under certain others.

Secondly, a given target of profit can be earned either from the application of a single price to the entire market, or from a discrimination among sub-divisions of the market in terms of persons, regions, or products. The problem of pricing, thus involves considerations of diversified financial behaviour of the enterprise vis-a-vis the consuming public.

Thirdly, low profits do not invariably imply that the prices are low. It is possible that low profits accompany, if not result from, high prices, especially where the latter are occasioned by high costs through inefficiency.

Lastly, high profits are not necessarily indicative of high prices. Given high managerial efficiency and the capacity for appropriate experimentation with the pricing techniques, an enterprise may earn high profits through low prices and correspondingly large outputs. A relevant observation in the British Government's White Paper of 1961 emphasising the surplus obligations of the nationalised industries may be cited in illustration: "The aim of the industries generally will naturally be to secure the necessary additions to their net revenue as far as possible by reductions in costs."¹

1 The Financial and Economic Obligations of the Nationalised Industries, H.M.S.O., and 1337, p.10.

The British electricity supply industry illustrates the possibility of rising profits, despite rising costs, through

contd.on next page

The terms "high prices" and "low prices" used in the above two paragraphs need a word of explanation. If they are not to be tendentious terms, their use is justified only when we have the opportunity of comparing the prices of a given enterprise with those offered by competing enterprises, either domestic or foreign, or of examining the cost conditions of the enterprise with a view to establishing the degree of efficiency they reflect. It is through such comparisons that the prices may be described as high or low. The remarks about low profits, alongside high prices, or high profits, alongside low prices, are to be understood in this sense.

In this context we may note a point of distinction between the implications of the profits and the pricing problems. "Profit" is essentially an organisational term, in the sense that we tend to apply the concept to an enterprise as a whole co-terminously with the administrative (apex) unit. On the other hand, pricing is a more specialised or micro concept, in the sense that it has to be, and generally is, considered in terms of the individual markets and regions served by the enterprise.

2. DISTINCTIVE FEATURES OF PRICING BY PUBLIC ENTERPRISES

The distinctive features of the pricing problem in the public sector may be analysed under the heads of demand conditions and supply conditions.

(Footnote continued from previous page)

prices not rising proportionately. Since 1950-51, the prices of power station fossil oils rose by 60%, of mechanical materials by 60%, of engineering materials by 40%, building costs by about 35%, and interest rates by about 100%; profits rose by ____%; yet in 1960-61 the average price of electricity sold was not more than 25% above the price ten years before.
Finance for Power, The Electricity Council, p.32.

A. Demand conditions

Where a public enterprise operates in an effectively competitive market, few special problems of pricing arise. Perhaps the main problem is one of maintaining conditions of fair competition between the public and the private units. The present controversy on the Life Insurance Corporation's attempts to extend the general insurance business of its subsidiaries illustrate the possibility of the public undertakings availing of their position of strength at some points for attracting to themselves demands at other points. Reference may also be made to the complaints by the motor car producers that opportunities of optimal output expansion - i.e., expansion leading to cost reduction - are denied to them when the government is about to launch low-cost car production in the public sector.

It is where a public enterprise operates under conditions of monopoly that the pricing problem assumes significance as well as complexity. The monopoly characteristics may be of two kinds. Firstly, a public enterprise may be one of a few undertakings in an industry, public and private; but the industry as a whole may have a seller's market, e.g., fertilisers and steel. The possibility of inter-unit competition is nominal in this circumstance, and the costs conditions as well as the profit ends of the public enterprises are likely to influence the price fixation by the government. However, it will be the lowest possible costs, other things being equal, that determine the prices in the long run, unless the government creates, openly or covertly, unequal conditions of competition in favour of the public enterprises, of

which capacity restrictions on the low-cost units, in whatever manner devised, are an example.

It is the public enterprises which operate with a significant degree of monopoly power that present the maximum of pricing complications. An attempt is made here to outline only such of the complications as characterise a public monopoly as against a private monopoly. Differences exist between the two categories of undertakings (a) in the mechanics of price motivation and (b) in the mechanics of the price structure.

(a) Mechanics of price motivation

While it is common to assume that a private monopoly is biased in favour of such prices, low or high, as make for high profits, and has no particular reason to be inclined towards low profits through low prices, the price motivation of a public enterprise is less easy to generalise on. It rests essentially on the profits target held for the enterprise through governmental stipulation. Subject to such stipulation, the factors in favour of high-price motivation are: (a) that the enterprise has little fear of entry by potential competitors and (b) that it has limited fear of the consumers' agitation being so effective as to invoke inconvenient governmental control over its prices. The factors in support of low-price motivation seem to be weightier, however. The external factors under this head are: (a) that there is the hope of some indirect returns from a public enterprise and (b) that Parliament and the government are generally susceptible to indecision on the fixation of high profit targets. The internal factors, i.e., those relating to the management, are: (a) that

the managers are usually tempted to assume it as desirable to follow a price policy which is in "the public interest" and of interpreting it as consisting of, low, rather than high, prices, and (b) that the enterprise is under a bias for full utilisation partly because this enables it to offer the maximum possible employment to the workers and partly because it leads to the early attainment of its physical targets, if any. For example, the emphasis laid by the Sindri Fertilisers and Chemicals Ltd. on the fullest possible operations till about two years ago led it, no doubt, to the realisation of physical targets sooner than originally planned. (We are not concerned here with the incidental effects on plant maintenance and the subsequent fall in output.)

(b) Mechanics of the price structure

If we assume that the profit target of a public enterprise is determined with reasonable definiteness, the further features of distinction in public enterprise pricing hinge around the formulation of the price structure.

The major differences from the behaviour of a private monopoly in this regard are: (a) that the managers have no particular inducement to formulate and practise a price structure on the maximal principle; (b) that they may never be appraised of a definite pattern of social preferences to be incorporated in the price structure; and (c) that they have no incentive for experimentation with the price structure. These aspects will be discussed later.

At this stage the monopoly elements present in the Indian public enterprise structure may be noted briefly. The central enterprises seem to possess greater monopoly power than the state enterprises, on the whole. Broadly the enterprises producing public utility products and services enjoy the highest degree of monopoly power, partly because there is no entry by others into those industries and partly because the products are not regionally transferable. The railways, to a greater extent, the internal airways, the Electricity Boards, the multi-purpose projects, the road transport undertakings, among public utilities, and, among manufacturing industries, Hindustan Aircraft Ltd. and Indian Telephone Industries Ltd. are examples.

In the category of monopoly due to the phenomenon of scarcity occur the Fertiliser Corporation of India Ltd., Hindustan Machine Tools Ltd., Hindustan Steel Ltd., Indian Refineries Ltd., and Hindustan Antibiotics Ltd.

Among the enterprises operating in competitive markets may be included Hotel Janpath, Ashoka Hotels Ltd., the Shipping Corporation Ltd., and most of the state government undertakings such as Nizam Sugar Factory Ltd., Andhra Paper Mills, Gudur Ceramics, Arabinde Tin Factory Ltd., Chilka Cashewnut Manufacturing Co. Ltd., Indian Turpentine and Rosin Co. Ltd., and Kerala Cycles Co. Ltd.

B. Supply conditions

The special features of the cost conditions of a public enterprise may be examined under three heads: (a) the cost behaviour (b) the level of factor and prices and (c) the anatomy of cost composition.

(a) Cost behaviour

As suggested earlier, a public enterprise, operating under monopoly conditions, is generally free from the motive of allowing under-utilisation of its capacity; its production plan is likely to be one of producing up to full capacity. In fact the existence of under-utilised capacity may constitute a reason for such modifications in the price structure as promote a larger consumption of the product; and the plea for marginal cost pricing may raise its head with particular force.

It is difficult to generalise on the question whether the investment planning of a public enterprise is inclined towards the creation of heavy initial indivisibilities, as against graduated additions to capital expenditure. Empirical evidence in several cases suggests that, on balance, there is a bias for the setting up of large capacities at the very beginning. This rests partly on the ground of economy in the subsequent stages of output expansion, and partly on the ease of securing funds, as illustrated by the "somewhat unbusiness like" purchases of machinery by the Bharat Electronics Ltd. in the early years, involving heavy under-utilisation.¹ The two results that follow

1 The overall utilisation of stand machine tools installed in the production shops, costing Rs.51.7 lakhs, was: 25%, 33% and 44% in 1956-57, 1957-58 and 1958-59. The degree of utilisation of the progressive aggregate of machinery was 6.6%, 28.0% and 53.9% in 1956-57, 1957-58 and 1958-59, likewise the buildings, costing Rs.129.70 lakhs by 1959 was heavily under-utilised, "the percentage of vacant area ranging from 5 to 100%. (Estimates Committee, E.C.No.134, 1958-59, pp.15-17.)

are that there is a strong tendency for outputs to expand rapidly and that the output expansions take place under conditions of declining cost till production approximates full capacity.

There are of course a few unfavourable influences at work. Where periodical changes occur in the design of the capital structures, the project misses the economy of comprehensive planning of the envisaged capacity in its totality; likewise where the ultimate capacity results from piece meal additions, the maximum possible economies characteristic of comprehensive planning, are lost to the enterprise. This may be the consequence of adequate funds not being available so promptly as they are needed for maintaining a continuous tempo of physical additions to capacity.

For example, the Nagarjunasagar canals are being planned to carry 11,040 cusecs of water both in the left and in the right canals, as against the ultimate carrying capacity of 15,000 cusecs and 21,000 cusecs respectively. A remodelling of the canals will be required at a later stage, implying "a process of construction throughout the lengths of these canals once again"¹. In other words, more capital resources than are necessary will be used in producing a given output - a source of permanent overhead burdens on the consumer.

1 The Eleventh Report of the Committee on Estimates, The Andhra Pradesh Legislature, 1960-61, pp.19-20.

From the following diagramatic representation of the disadvantage suffered in the above circumstances, it can be seen that, as against the possible cost curve of AC for a capacity of OM in the long run, less favourable cost functions as represented by AC₁, AC₂, and so on, will be realised either for the same capacity of OM or for slightly enlarged capacities such as OM₁ and OM₂.

(b) Factor prices

There seems to be no reason why a public enterprise should be under a disadvantage in the matter of factor prices. In fact it may enjoy certain privileges not open to the private enterprises, viz., bulk contracts of purchase and concessions available to governmental purchases. A third possible advantage is that a public enterprise can avail of the organisation of the Director-General of Supplies and Disposals in effecting certain purchases, particularly from abroad. The Directorate can offer the economies of a specialised agency devoted to the function of acquiring the materials required by the government departments and the public enterprises.

These theoretically possible advantages are weakened by certain difficulties in practice, as shown in a later section.

The most prominent among the economies of low factor prices open to a public enterprise is the availability of cheap capital, either through government subscription or under government guarantee. From the book-keeping standpoint of an individual enterprise, the low capital charge is undoubtedly a source of economy, the more materially so in the case of capital-intensive projects. But for the national economy as a whole no corresponding advantage is directly involved. The question will be discussed further in the next chapter.

(c) The anatomy of cost composition

Let us examine the nature of the continuing influences specially operating on the cost composition of a public enterprise, given a structure of capital and capacity. As contrasted

Subsidised prices of inputs supplied by one public enterprise to another are another possible source of accounting economy. For example, the Mysore Iron Steel Works obtains fire wood and charcoal from the Forest Department, "at considerably subsidised rates", which helped the undertaking "to show fictitious profits".¹

(c) The anatomy of cost composition

Let us examine the nature of the continuing influences specially operating on the cost composition of a public enterprise, given a structure of capital and capacity. As contrasted

¹ Report of the Public Accounts Committee on the Appropriation and Finance Accounts of the Government of Mysore for 1958-59 and the Audit Reports thereon.

with a private unit, it is under the particular impact of four factors: (i) social costs (ii) propriety costs (iii) costs of external decisions and (iv) costs of public organisation.

(i) Social costs: These are incurred by a public enterprise at least in four ways: (1) by spending more heavily on employee rewards (2) by carrying more labour, (3) by providing for more consumer amenities, than a private enterprise does, and (4) by incurring, within its own accounts, costs which, in the case of a private enterprise, are shifted to other and public agencies.

(1) The level of wages rests on the notion that a public enterprise ought to be a model employer, offering high wage rewards and other amenities; and political considerations may vitiate the linking of wage enhancements with productivity.¹ Wherever the rising wage rewards cannot be accommodated within the gross revenues of the undertaking, a case emerges, as if a self-evident one, for raising the prices in order to cover the costs. It is difficult to adjudge to what extent the labour rewards and labour welfare expenditures of a public enterprise can strictly be characterised as a response to notions of social justice, as against the paying ability of the enterprise in question. However, it seems reasonable to suggest that the welfare expenditures of several public enterprises are decided on social grounds. A recent analysis of the higher wage costs of the Singareni Collieries Ltd. than those of some of the big collieries in Bengal shows that the excess of Rs.1.67 per ton of coal is the result of (a) more liberal bonus rules,

(b) larger numbers of "higher-category" workers, (c) better conditions of leave with pay, (d) higher provident fund contributions, (e) better medical and sanitary amenities, welfare activities and housing facilities, and (f) the maintenance of three townships, including roads and water supply.¹

1 Comparative wage cost:

	Singareni cost per ton Rs.	Bengal cost per ton Rs.	Difference per ton Rs.
Wages, salaries, bonus and provident fund	11.18	9.92	1/1.67
Civic service wages	0.68	0.27	
Civic service stores	0.73	--	0.73
	12.59	10.19	2.40

Evidence of more liberal bonus musters:
Qualifying musters for bonus

Workers	Singareni	Bengal
Coal cutters	52	54
Other underground workers	60	66
Surface workers	65	66

Over 90 per cent of the Singareni workers and staff qualify for bonus as against an average of 40 per cent in West Bengal.

1500 men are employed in Civic Services and their bonus is an additional expenditure to Singareni compared to Bengal where these services are proved by separate Boards at a nominal cess on coal.

Leave with pay :
Qualifying musters for Leave with Pay

Description of workers	Singareni	Bengal
Coal cutters	190	190
Other underground workers	240	265
Surface workers	260	265

The Hindustan Shipyard Ltd. (in its annual report for 1959-60) emphasises on the steep increase in its welfare expenditures during 1956-59. The enthusiastic diagram presented on page 42.. of the Report indicates an increase in the expenditures by 50% per cent during the three years.¹ Obviously this increase does not derive from its paying ability; nor is it similar to the trends of labour welfare expenditures in the economy as a whole. While explaining its higher costs and lower profits than those of the private operators it displaced in certain areas, the Andhra Pradesh State Road Transport Corporation referred, as an important factor, to the higher emoluments to labour offered by it. The estimated costs of townships at Rourkela, Bhilai and Durgapur, constructed by Hindustan Steel Ltd. seem to be based as a step and lay-out aimed "to provide therein facilities becoming of a government undertaking and not below what was available to similar classes of people in private industry." In the Estimates Committee's view, the outlays considerably exceeded those of the townships built by the Chittaranjan Locomotive Works and the Sindri Fertilizers and Chemicals Ltd., in relative terms.¹

¹ Estimates Committee, 1958-59, E.C.No.103, on Hindustan Steel Ltd., page 88.

(Footnote continued from previous page)

Welfare expenditure:

	<u>Cost per ton</u>
	Rs.
Medical and Sanitary	0.61
Roads and Water supply	0.22
Welfare activities	0.18
Buildings	0.44

	1.45

Source: Memorandum of the General Manager, Singareni Collieries Co.Ltd. to the Members of Parliament in Feb.1960.

(2) Evidence on surplus labour and on the inadequacy of attempts at retrenchment is available from the annual reports of certain public enterprises and the Estimates Committee's Reports. For example, there exist elements of excess staff, which are not retrenched by the Sindri Fertilizers and Chemicals.¹ The Chief-Cost Accounts Officer of the Government of India described the staff position of Indian Telephone Industries Ltd. as "rather extra-ordinary" in 1955 when "for every labourer employed there would be a supervisory strength of about 1.3 men".² His remarks on the accounting staff of the undertaking have a similar purport.³ During the Estimates Committee's enquiries into the State Trading

1 "The representative of the Ministry contended that, though a view was held in responsible quarters that there was some over-manning in the Company, it was extremely difficult from the point of view of public relations to achieve rationalisation by retrenchment in a public undertaking". Estimates Committee, 1960-61, E.C.No.214 on Sindri Fertilizers and Chemicals Ltd.

2 Report No.1911 dated 25th November 1955.

3 "The total strength of accounting organisation, including the officers, but excluding the internal audit and time keeping was 153 on 1-11-1954. A strength of 153 men for the accounting in a factory where the total strength is about 2500, out of which about 1100 only are workmen employed on actual production, and the others are managerial or supervisory, staff, is really a high figure. In spite of this strength, the condition in the Accounts Organisation was far from what it should be. In spite of the fact that this is a multiple costing factory, I am clearly of the view that there is ample scope for effecting a substantial reduction strength in this Department".

Estimates Committee, 1957-58, E.C.No.78, on the Indian Telephone Industries Ltd.

Corporation of India Ltd. in 1959-60, the managing director opined that there was "a little excess of staff in the lower categories", and the Secretary to the Ministry apprehended that the large staff at the top "might be the result of possibly government in having a number of levels."¹ The Ashoka Hotels Ltd. is alleged to be "overstaffed".² Relatively to output the numbers employed in Praga Tools Corporation Ltd. are excessive.³ Efficiency experts employed by the Indian Airlines Corporation found that in the Engineering and Stores Organisation 700 employees were "surplus";⁴ and the Corporation is "committed to a policy of no retrenchment"⁵. The surplus manpower in the Hindustan Shipyard Ltd. is a classic example.

(3) An interesting example of high consumer amenities is available from the experience of the Bombay State Road Transport Corporation which has constructed excellent bus stations at several places and equipped them with admirable facilities, which, when compared to the like facilities elsewhere, are luxurious. The high level of facilities provided at "low-frequency stations" by the Indian Airlines Corporation is another example.⁶

(4) The other way in which a public enterprise bears social costs is by providing certain of its outputs to consumers and regions that do not pay the related costs in full. For

1 Estimates Committee, 1959-60, E.C.No.172, on the State Trading Corporation of India Ltd., p.12.

2 Estimates Committee, 1960-61, E.C.No.213 on the Ashoka Hotels Ltd., p.14.

3 E.S.Sastry, The Finances of the Praga Tools Corporation Ltd., Applied Economic Papers, September 1961.

4 Public Accounts Committee, 1959-60, P.A.C.57-II, p.102

5 The Committee on the Cost Structure of the Indian Airlines Corporation further observed in 1959 that "in addition to this ~~principles~~ pre-existing surplus, further surpluses would arise from many of the changes which we have discussed in the preceding sections of this report." (page 16)

6 "IAC should have ~~and~~ Government support in resisting political pressures to boost unduly the standards of traffic and sales facilities at low-frequency stations." ~~xxxxxx~~ (Ibid, page 23)

example, the British European Airways, after being refused a subsidy for its services to the Scottish Highlands and to the Isle of Man, continued to operate them "as a social service", as observed by the Select Committee on Nationalised Industries, in 1959. The Corporation took the losses "into their own accounts without particularising them".¹ Similar instances are available from the operations of the Indian Airlines Corporation and the railways in several areas. Wherever subsidised outputs are offered on social grounds, the operations are marked by elements of cost which the private enterprises do not usually have to provide for. The argument is not that such outputs are to be abandoned, but that the expenditures involved, being merged in the general pool of costs of the enterprise, inflate its overall cost composition, to the disadvantage of the other consumers. Though an attempt can be made, and is made in some cases,² to segregate (the socially imposed outputs from the commercially determined ones, The demarcation ^{between} cannot be accurate in many cases; nor can the understandable tendency on the part of the managers to act in the social good of the needy consumers be fully located and the cost implications accurately traced.

(ii) Propriety costs: The public enterprises are singularly under the stress of having to incur expenditures on being prepared to satisfy the challenges of external vigilance over their activities. These are inevitable in a democratic society

1 Report from the Select Committee on Nationalised Industries. (The Air Corporations) May, 1959.

2 For example, Section 34 of the Air Corporations Act, aims to distinguish, though conditionally, between the autonomously determined services and those owing to governmental direction.

The demarcation between the socially imposed outputs from the commercially determined ones may not be accurate in many cases; nor can the understandable tendency on the part of the managers to act in the social good of the needy consumers be fully looked and the cost implications accurately traced. Yet the attempt is necessary, and the onus of deciding that certain services should be operated despite their inability to cover their costs out of revenues ought to rest with government and not the Corporation".¹

(ii) Propriety costs: The public enterprises are singularly under the stress of having to incur expenditures on being prepared to satisfy the challenges of external vigilance over their activities. These are inevitable in a democratic society

¹ For example, Section 34 of the Air Corporations Act, aims to distinguish, though conditionally, between the autonomously their determined services and those owing to governmental direction.

and may take the shape of investigations by parliamentary committees criticism by the members of Parliament, audit by the Comptroller and Auditor-General and public criticism in the press. The public enterprises are impelled to conduct their operations, especially the expenditure operations, in such a way that all the relevant rules are satisfied and that there is nothing "irregular" about any transaction. The lowest tender system, the need to advertise the requirements of purchases, adherence to the necessary hierarchic formalities in securing sanctions, and strict compliance with the original budget estimates are aspects of propriety on which the managers of a public enterprise soon learn to place priority as against methods which may prove substantively better but, in the formal sense, are irregular. The procedures¹ built up for the sake of propriety, have for one of the important consequences delays in decision making. This has two serious defects: firstly, certain possible economies may be lost due to the impromptitude of the decision, and secondly, a decisional framework characterised by delay dissuades the managers in the long run from evincing positive interest in prompt action. It is interesting to note that Professor J.K. Galbraith has even stressed "the importance of timeliness as compared with precision in industrial decisions".² The classic example of a delayed decision in the public sector lies in the appointment of the Chief Engineer of the Damodar Valley Corporation. What cost effects the delayed appointment had, may

be gathered from the P.S.Ram Committee's observations.¹ Corroboratory evidence is available from the experience of the Neyveli Lignite Corporation Ltd. A two-year delay has occurred in the completion of the integrated lignite project, partly because of "the delay which occurred in getting the sanction of various schemes from the Government of India"; and the delay caused a 10% rise in the estimated cost of the project. Similarly delays in accepting some German tenders resulted in an additional expenditure of Rs.60 lakhs over the original estimates of the Mining Scheme.²

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- 1 A few other examples of costly delays may be cited from the appropriation accounts, 1959-60, and the audit report, 1961 - Part I. The delay in the finalisation of the contract for the purchase of pig lead resulted in "an extra avoidable expenditure of Rs.19,360", page 56, in the case of Heavy Electricals Ltd.

The Industrial Finance Corporation of India, lost by postponing recovery of the calls in error by the Company "E". (page 65).

The Hindustan Shipyard had to make an extra payment of Rs.5,493 due to delay in accepting the original offer by a foreign firm for the supply of small galvanising plant in 1956-57 (page 69).

- 2 Estimates Committee, 1960-61, E.C.No.233, Minutes of Evidence on the Neyveli Lignite Corporation Ltd. The Joint Secretary of the Ministry of Steel, Mines and Fuel, told the Committee "there were certain initial offers from the makers of the specialised equipment in Germany and certain dates were stipulated by them for acceptance of offers. Unfortunately it took sometime for the corporation to consider the tenders of the offer. By the time both the Corporation and the Government could reach a decision the equipment which the manufacturers had earmarked for supply to the Corporation had been sold to certain other parties. As a result of this slight upset in the time schedule and in order that the mining programme did not suffer, it became necessary for the Corporation to acquire some more conventional equipment. This accounted for increase of something like Rs.60 lakhs over the original estimate."

continued on next page

Another forceful example of expensive delays occurred in the finalisation of plans by Hindustan Steel Ltd. In the opinion of the Estimates, "the delays have partly contributed to the high costs of the projects"; and "it has been estimated that every day's delay would involve an expenditure of about Rs.10 lakhs at each plant."¹

An interesting, but not widely realised, consequence of the propriety requirements is that a public enterprise is often compelled to maintain larger stores in reserve than are probable in a similar private enterprise. This is due to the longer duration of the purchase cycle in the public sector; excessive inventories of spares and tools are maintained by an anxious manager in order to avoid the contingency of not being able to purchase the requirements by moving at the right time. The working capital needs of the enterprise get inflated for this reason.

The procedures to be adopted for making a purchase or for sanctioning an expenditure may occasionally have the consequence of wrong purchases being made by a public enterprise. This happens particularly where the lowest tenderer cannot be refused a contract under the rules, though he is known to be likely to supply material of sufficient durability and quality. It is true, in theory, that a proper recording of the reasons for the

¹ Estimates Committee, 1958-59, E.C.No.103, on Hindustan Steel Ltd., p.44.

(Footnote continued from previous page)

Also, see the Estimates Committee's remarks in the Report E.C.No.219, 1960-61, page 12: "There could be little justification for the long delay in taking a decision on the Briquetting and Carbonising Plant for which tenders have been received at the end of 1959".

inadmissibility of the lowest tender helps the managers in convincing the audit machinery of the propriety of their action; in practice, the course is so difficult that several ordinary human beings treat it as a risk not worthing courting. Further, there is an emphasis in the public sector on the distribution of purchase contracts among a few suppliers, as against concentration on one (or two). Whatever the rationale of this course, it denies the public enterprise the advantages accruing from adherence to a single good supplier, which is a more common - though not invariable - practice in the private sector. Diffused purchases may prove to be uneconomical purchases in the end.

(iii) Costs of external decision: The operations of a public enterprise are under the impact of external decision in several ways, of which some have already been referred to. Broadly the costs of external decision may occur in the following ways.

(a) Capital may be locked up through decisions favouring a slow tempo of construction work. This lengthens the period of gestation; and by the time the project is complete, the capital figure standing in the books includes a substantial amount of capitalised interest (on capital). The Nagarjunasagar Project may be cited in illustration of slowed-down execution, which is bound to have a permanently adverse cost impact on its future working.

(b) Where the governmental preference is for initial over-capitalisation, as against the method of graduated expenditure, the enterprise is involved in unduly heavy overheads in the early periods. The Bharat Electronics Ltd. is

is an example, whose percentage of overheads to direct labour was 1,100% during 1956-58 and expected to fall to 725% in 1958-59.¹

(c) Lack of complementary developments may subject an enterprise to unfavourable cost conditions. For example, the absence of a dry dock at the port of Visakhapatnam has made the operations of the Shipyard less economical than otherwise; and the inadequacy of minor irrigation canals in the Damodar Valley Corporation area in Bihar limits the utilisation of its irrigation capacity.

(d) Operations may be so timed, because of external decision, that the enterprise courts certain costs, which under a different phasing of activity, may be avoided. For example, had the nationalisation of road transport services in certain districts of Andhra Pradesh been commenced a few months later than it actually was in 1960-61, the Andhra Pradesh State Road Transport Corporation would have avoided the payment of compensations to the displaced operators.

(e) Sometimes external considerations may persuade the management to expand the production activity in the interest of the suppliers of raw material and other inputs. For example, the Nizam Sugar Factory Ltd. continued to extend its crushing season during 1961 for nearly four weeks beyond the usual period, in order to oblige the cane growers whose output was relatively excessive. It is uncertain whether a private enterprise would

¹ Estimates Committee, E.C.No.141, Minutes of Sitzings, 1958-59, on Bharat Electronics Ltd.

have unconditionally done so, for the process involved the intake of cane from which the extraction of the sucrose of content tended to be progressively inferior, for natural reasons, as the season prolonged - it went down to 4% from the average of 11%.

The usual media through which the costs of external decision reveal themselves are: periodical increases in the capital cost, extravagance in the investment processes, formulation of defective designs and periodical changes, structural disadvantages relating to site and factor combination (for example, the Shipyard at Visakhapatnam is so located that, consistent with economy, it cannot hope to expand very much for additional berths), and undue adherence to budgeted plans of expenditure.

(iv) Costs of public organisation: A public enterprise, on an average, is characterised by higher costs of organisation than a similar private undertaking, due, in the first place, to the almost usual tendency towards over-centralisation in its administrative organisation. It is not possible to discuss this question fully here; but we may note an essential difference in administrative organisation between public and private enterprises, viz., that the latter resort to the centralisation of a function only when justified on grounds of economy or convenience whereas the former^f concede to decentralise a function rather reluctantly and sparingly. This imposes a cost, which, not being traceable directly to an item of expenditure, escapes our attention; but it reveals itself in qualitative terms - in the errors and delays that occur in decisions and operations. For example, "the unusually high" ratio of ministerial staff to workers in

the National Instruments Factory was "explained by the government" on the ground of "limited extent of delegation of powers to local authorities."¹

An allied cost of top organisation derives from the non-commercial basis of constituting the directoral boards. The more they include persons whose commercial merits for the posts are doubtful, the greater the unseen costs that they impose on the undertaking. In the words of a top executive of a public enterprise "the board of directors of public sector undertakings, as at present constituted, appear to exercise a check on their working rather than give its activities a direction and a purpose".²

The nation-wide organisation of a public enterprise can be a source of disadvantage, in that the wage scales are probably determined by the conditions of cost of living prevailing in the costliest regions served by it. The Indian railways, as contrasted with the road operators, are to adhere to uniform salary scales all over the country; correspondingly they are under a cost disadvantage as against their competitors. The Neogy Committee's

1 "For even the smallest purchase, written tender notices have to be issued to several suppliers, tenders received have to be tabulated and after the best tenders have been selected, orders have to be issued in writing and followed up similarly. Moreover if the delivery date is exceeded by even a day, the factory has to obtain the concurrence of the Finance Ministry on a written note before accepting the stores". Estimates Committee, 1955-56, E.C.No.11, on the National Instruments Factory, Calcutta.

2 Mr.B.Venkatraman, "Some Aspects of Public Sector Undertakings", a paper presented at the Weekly Seminar in Applied Economics, Osmania University, on the 9th October, 1961.

Observations on this problem are cited below.¹

"As a public undertaking the railways at present are under obligation to provide to their staff uniform scales of salaries and wages and other amenities. In several regions of the country, the railways as a Central Government undertaking have to pay scales of wages which are substantially higher than the scales admissible to the employees of the State Governments within whose territories the railways function. This obligation, therefore, involves, a social burden on the railways which the comparatively smaller units in the other means of transport are not called upon to bear."

The co-efficients of dispersion in the railway wage bills per employee on the different zones in 1952-51 were 0.09, 0.036 and 0.034 respectively for Class I and II, class III and IV, and all classes of employees: whereas the co-efficients of dispersion in the wage bills per employee in the different state road transport undertakings were respectively 1.15, 0.29, 0.49 and 0.28 for administrative staff, traffic staff, maintenance and repairs staff, and all employees.²

It is not proposed to go into several other instances of public enterprise rules and conventions having an adverse affect on their cost structure.³ It is true, in theory, that

1 Committee on Transport Policy and Co-ordination, Preliminary Report, p.22

2 Mr.M.Gopalakrishna, "Social Element in Public Sector Wages," Applied Economic Papers, September 1961.

3 For example, Mr.B.Venkatraman observes, in his paper cited above, with reference to staff recruitment: "The best available talent cannot be selected and offered a pay to suit each individual case, but a grade has to be fixed in advance and recruitment made to the pre-determined posts by public advertisement.

The conception of security of service militates against the weeding out of inefficient staff which in the private sector is a common feature.

The Governmental conception of an incumbent being different from a post, both requiring sanction at appropriate levels, militate against the economic deployment of staff which in a private sector is carried out by assigning duties to each man in accordance with his capabilities, so as to get the best out of him."

reform is possible in several of these respects; nevertheless it may never be possible sufficiently to relieve a public enterprise of the institutional forces working on its cost structure to place it on the same footing as a private unit.

The purpose of the above analysis is to indicate the nature of influences operating on the cost structure of a public enterprise. The broad conclusion seems to be that it is somewhat unfavourably affected by the institutional characteristics of organisation.

At this stage we may introduce the idea of evaluating the factors used by a public enterprise from the social, rather than from the individual, point of view. This is the counterpart of the concept of social returns claimed for a public enterprise. The plea for the social evaluation of the factor prices is derived from the fact that the accounting prices of some factors do not faithfully represent their intrinsic degrees of scarcity. For example, capital, mechanical equipment, foreign exchange, imported machinery and technical skills have a high scarcity value under the current conditions of India; and enterprises should really bid for them at prices which reflect their scarcity value for the economy as a whole. Though the argument applies equally to the two sectors, it needs emphasis vis-a-vis the public sector undertakings which seem to be relatively well-placed in securing the scarce resources, because of their governmental backing. It is the physical rationing underlying their allocation that keeps their market prices artificially lower than what they can be, if left to the free play of supply and demand. In the latter circumstance the factors are likely to reach those enterprises

social evaluation of their scarcity characteristics. (For an illustration of the inadequate application of economic criteria to foreign exchange allocations, even of a marginal character, we may refer to the present situation of the Indian Airlines Corporation, whose gains from the availability of foreign exchange far exceed the social costs of the allotment.) To some extent, the private enterprises do pay higher than the "controlled" prices in acquiring scarce factors, either by acquiring them in black market or by being compelled to carry under-utilisation of capacity for reasons of lack of the necessary raw materials, skills or tools.

social evaluation of their scarcity characteristics. To some extent, the private enterprises do pay higher than the ~~market~~ ^{controlled} prices in acquiring them, either by acquiring them in black market or by being compelled to carry under-utilisations of capacity for reasons of lack of the necessary raw materials, skills or tools.

However, the need for a notional inflation of scarce factor prices is as great as its improbability in practice, for the contention will be raised appealingly that it limits the prospect of indirect returns from the enterprise in question. This is a dubious contention; for it is preferable to compute objectively all the costs involved in the production of a utility in the first place, and then to devise suitable diminutions in the profit target consistently with the indirect returns expected of the enterprise. Otherwise the real quantum of opportunity costs involved in its operations will never be known accurately.

The social evaluation of the factor prices enables us to undertake more accurate comparisons than otherwise are possible as between projects which require diverse proportions of scarce and non-scarce resources. Where the market values of two diverse combinations are approximately the same and the two projects consequently seem to be similarly merited, an assessment on grounds of social evaluation sets the right priorities between them. Likewise, where market prices establish marginal priority of project A over project B, social evaluation may reverse the priorities in certain cases, and the latter are in the greater interest of the national economy.

In concluding on the cost aspects, we may suggest three questions which need to be answered before the costs of a public

enterprise are admitted as the basis of its prices. Firstly, are the techniques of operation, both production and marketing, the most economical in the circumstances of the industry? Secondly, are the scales of output, product differentiation, and selling cost programmes the most economically determined? Thirdly, is every cost incurred necessary and is it economically incurred?

The first question is, on the whole, the easiest, ^{to answer,} with the help of international comparisons, subject to qualifications, wherever necessary. The second question is more difficult to answer, particularly in the case of a monopoly undertaking. There may not be much evidence from outside for verifying the efficiency of managerial initiative within the enterprise; and the full range of possibilities in determining the scale of output and in regulating the demand conditions can never be easily known to, or suggested by, outside experts. The most economical arrangement in the long run seems to rest on the formulation of suitable schemes of incentive, probably through bonus payments to the managerial personnel at all levels. These may be linked with profits, costs, and output, and offered when these compositely record an improvement.

In dealing with the third question, we have to devise appropriate conventions soon enough for reducing the propriety expenditures; or else, these will constitute too dear a price for achieving, through nationalisation, the deprivation of private investors of the unlimited enjoyment of profits. The dearness may not be merely in arithmetical terms; it has a deeper qualitative purport for the very efficiency of the enterprise. In so far as the social costs are concerned, the most

proper course will be for the government, through an appropriate public agency, to outline how far an enterprise, on its own initiative may go in rewarding its staff directly or indirectly. Or else, the managers of public enterprises enjoy the parliamentary prerogative of determining, however slightly, the patterns of income re-distribution.

The rest of the discussion on pricing will be in terms of a given cost base. The connotation of the "given cost base", it may be understood, is that, subject to the several qualifications enunciated in this section, the costs incurred by a public enterprise are the lowest possible and the lowest necessary for an enterprise to incur under conditions of managerial autonomy. Thus when it is argued in a particular case that the price may be "10 per cent above the cost", it does not merely mean "10 per cent above any level of cost"; it means: "10 per cent above the minimum possible or necessary cost". While the "10 per cent" represents the profit expected of an undertaking, the magnitude to which the 10 per cent is added is a vital quantity from the consumers' point of view.

This illustrates, again, that the profits problem and the pricing problem are not just different expressions of the same idea.

The need to effect the maximum possible cost economy is intensified under a policy of high capital formation on the part of a public enterprise. This may be illustrated by the following diagram.

Given the demand conditions as represented by the curve D, the consumer's interest is affected the more, the higher the price is fixed above the cost curve AC. Since the requirements of capital formation make this necessary, it is of vital moment to insist that the restriction on output, which the price implies, is the minimum possible. For instance, surplus of PQRS, there is an output restriction to the extent of MM₁. Now the only method of achieving the same surplus while simultaneously making more output possible, given the D curve, is to lower the cost curve, i.e., to affect cost economies. If, in the range of output we are concerned with, the cost curve can be lowered to AC₁, the output can be larger than the earlier one of OM and the price lower than the earlier one of MP, while the same surplus as planned continues to be realised. Thus the consumer's interest has maximum protection under the policy of a sizeable surplus when the policy is accompanied by the maximum of cost efficiency. Where it is not, the price interest of the consumer too severely clashes with the profit interest of the enterprise.

3. RESPONSIBILITY FOR PRICING

Unlike in the private sector where the managers are the final authors of pricing, subject to the broad policies laid down by the shareholders and any governmental control on prices, the pricing function in the public sector is diffused over the minister, the department, and the managers. The diffusion is not without meaning. As regards the quantum of profits to be aimed at by a public enterprise, the government is the right authority to take the final decision. For, when an enterprise operates under conditions of monopoly the managers can adopt any of the available pricing policies and by themselves have no logical reason to prefer one policy and level of profit to another. In the few cases where profit maximisation is allowed to be the aim of managerial behaviour, the managers tend to have a clear mandate as to what is expected of them; in the other and more frequent cases, the consumers cannot be confident that the profits aimed at by the managers are what the government wishes of them in the shape of extra-cost payments. Profits earned beyond the normal margins of profit intended to provide for capital formation and dividend equalisation, contain elements of taxation, in the sense that they result from prices which far exceed the costs; where the individual excesses of prices over related costs, as applied to different consumers or regions, vary, another characteristic of taxation, namely, differentials in the levy, becomes obvious. In both these respects, viz., the level of extra-cost margins and the pattern of differentials in them, the government is logically the more competent authority to decide than the managers of the public enterprises.

At the next stage the managers of a public enterprise are left with the function of formulating an appropriate price structure compatible with the price-profits policy enunciated by the government, by adopting the most economical and pro-consumer principles of output determination and price discrimination.

An accurate dichotomy between the pricing policy and the price structure is not very easy to effect in practice, for the following reasons. Firstly, it is difficult to take decisions on pricing policy in complete isolation of those on the price structure. Each affects the other to some extent, though a reasonable translation of the overall pricing policy into an appropriately diffused price structure should be possible as well as necessary. Secondly, it is unlikely for the government to limit its interest strictly to the price level; it may be interested genuinely in the distributional implications of the price structure. Even in this respect the government may strictly be content with the enunciation of policies; in practice, however, most governments are anxious to go further. To the extent that they do so, the autonomy of the management in determining the pricing structure is affected. Thirdly, the management of a public enterprise is tempted to interpret the public interest in its own lights, wherever the need for an interpretation arises, to their mind. In this way price structures, whose autonomous formulation ought to depend essentially on objective criteria, tend to be characterised by non-commercial considerations which are logically the prerogative of Parliament and the government to enunciate.

The purpose of demarcation between the pricing policy and the price structure and of suggesting that the responsibility for the former ought to rest with the government and that for the latter with the management, is realised in practice only if the responsibilities are formally distributed in a manner conducive to the demarcation and if the government desists from informal interferences with the price structures. Experience, in Britain as well as in India, has shown that, while the government has been reluctant to own its dominant share in a pricing decision going in the name of the enterprise, governmental insistence, behind the screens, has been the real genesis of many a decision. The prices of coal and railway transport, and the winter sur-charge on electricity in 1949 are examples of informal governmental intervention in Great Britain. The way in which the intervention takes place in India is two-fold. Firstly, the government may avail of the opportunity of examining the budget estimates of a public enterprise for exercising control over the price structures. Secondly, the boards which usually consist of official majorities can - and usually do - carry out the government's wishes in the field of pricing; here the pricing decisions apparently originate in the board room and bear the board's stamp, whereas their unnoticed parentage is traceable to the government department or the minister. The public corporation Acts do not give any clear indication as to the relative roles of the government and the boards in discharging the pricing function. Nor are the articles of the government companies of particular value in this respect.

The advantages of reserving the overall pricing policy for governmental determination are as follows. Firstly, the

financial consequences of the policy can be attributed to the government and suitable subsidies, if necessary, asked for. Secondly, the price tribunals, if any, can operate on the basis of clear governmental intentions on the financial performance of each public enterprise. Thirdly, the consumers and the members of Parliament will be able to get any necessary modifications in the consumer's burdens by initiating discussion and moving for action at the right level, instead of vainly agitating against the managers of the enterprise.

An unfortunate sequel of the inevitable diffusion of pricing responsibility between the government and the board is that the board psychologically tends to be disinclined to concede either a decentralisation or even an adequate dispersal of price fixing over the different tiers of internal organisation. This is because the board becomes over-conscious of its answerability to the government in terms of a declared overall financial policy. The disadvantage is particularly great with monolithic and mammoth organisations in the public sector.

We may now refer to a special version of diffusion of the pricing function. Certain undertakings like Indian Telephone Industries Ltd. and Hindustan Aircraft Ltd. have been under greater governmental influence than argued as reasonable above. The prices offered to the enterprises are relatively low and are based on the rough principle of "cost-plus". A possible justification for such rigid influence is that the government happens to be the major consumer of these enterprises. As suggested earlier, the right policy even in this case ought to be for the government to formulate the overall pricing policy on the merits of the products concerned and not on the artificial

ground of the government being the major consumer. After all, the government departments which acquire these products employ them commercially, so that the cost implications are borne by the eventual consumers, the telephone users, and the railway users and air passengers, in the instances cited here. If the government decides to subsidise these consumers, it is more appropriate for it to ask for a subsidy oriented to that purpose while presenting its budget demands, and to keep the operations of the industrial enterprises strictly commercial.

Where there is the likelihood of a part of the output being supplied to other consumers than the government departments, the problems of inter-consumer discrimination, coupled with governmental monopsony, will be of sufficient importance to call for a pricing policy based on commercial considerations rather than on the ground of softness for the government as a major consumer.

4. THE FUNCTION OF PRICE

Let us examine the role that prices play in the context of public enterprise operations. In the first place the prices of a public enterprise ought to be such as enable it to raise adequate resources for re-investments, in the same way as capital formation takes place in the rest of the national economy. An undertaking which falls short of such a policy eventually shifts to others the responsibility of finding funds for its own development; (and its consumers continuously enjoy an unnoticed subsidy). The criteria of fixing the extent of capital formation in relation to each public enterprise have already been discussed in the previous chapter.

Secondly, the prices of a public enterprise ought to be the basic guide to further investment decisions, subject to the argument of indirect returns presented earlier. This is a slightly different and extended version of the concept of profit as a guide to investment decision. At this stage the price structure, besides the price level, assumes importance, since indications of investment eligibility ought to be available with reference to particular products produced and/or regions served by an undertaking. The overall profit is of little practical significance if it is comprised of widely divergent rates of profitability among the different markets which the enterprise caters to. Expansion of output and capacity is desirable in areas where the price-cost differential is the most favourable; whereas contraction is justified in areas, or in the production of products, whose price-cost ratios are positively unfavourable. As a first rule the managers of an enterprise may be required to formulate an objective link between price structures and investment decisions and the government may then examine whether the output implications of those decision taken on commercial grounds are equally justified on other grounds. The onus of proving the propriety of a deviation from the autonomous decisions of the managers thus rests on the government and cannot be indifferently borne in vigilant democracy. For the prices to operate as a guide to individual investment decisions within an enterprise, it is necessary to provide it with the most conducive organisation and accounting practice.

Thirdly, an enterprise, just because of its organisation in the public sector, ought not to disturb the purposefulness of price as an instrument of enabling consumers with similar

purchasing power to derive a similar quantum of utilities. This is already disturbed, to the extent that monopoly elements creep into the economy. Public enterprise can easily be an additional interference with the efficacy of the price mechanism, unless sufficient care is taken to establish the relationship between the price charged and the related cost. It is not suggested that the relationship should be same in the case of every output sold. It may be unequal either for social reasons, which are external to the autonomous decisional machinery of the enterprise, or for some valid internal reasons of the undertakings. Within the legitimate limits of a pricing unit - a subject for discussion in the next section - diversities in the price-cost relationship among different consumers may be considered as a normal feature of commercial operations. Where the diversities cannot be explained on these grounds and yet are practised by the managers, they reflect their indifference or inefficiency; in any case, they eventually cause income shifts as between the consumers, which the community has not intended through the medium of the public enterprise in question.

Finally, the prices of a public enterprise ought to be so employed as to enable it to operate at the lowest cost possible. This may be achieved through appropriate price experimentation of which an important aspect relates to the very choice between a single price and a price pattern. A special case of price experimentation is the two-part tariff, possible with some public utilities, which is likely to encourage output expansions accompanied by declining costs.

5. THE PRICING UNIT

One of the vital questions relevant to public enterprise pricing is the size of the pricing unit. This term connotes the area of consumers, products, or regions that may be taken as a unit for the purposes of price fixation. It implies the determination of the price or prices within that unit on the overall basis of the costs relevant to that unit. If, for instance, the pricing policy fixed by the government or otherwise calls for a 10 per cent margin, the principle is ordinarily to be applied to every one of the pricing units, such that, other things being equal, the price-cost relationships among them may be determined approximately by the 10 per cent criterion. In other words, the margins should not too widely disperse from one another, though their average works at 10 per cent.

The size of the pricing unit depends on three factors:⁴

(a) the possibilities of division or allocation of the costs incurred by the undertaking, (b) the convenience of sub-division of the market, and (c) the managerial willingness to avail of the price-cost relationships within the organisation with a purpose. A broad comment on these factors is that few attempts have been made by the generality of the public enterprises in India to proceed with cost imputations to parts of the producing or selling process. Attempts at the sub-division of markets are limited by the fear of public criticism that it represents a return to a capitalist or profit-making practice. The willingness to formulate distinctive pricing units within an enterprise

organisation should be of special benefit to the less favourably placed consumers and regions.

The purpose of demarcating distinctive pricing units within an organisation - this may not be applicable to very small units where such a demarcation is unnecessary or of nominal value - is, firstly, to confer on a region or a group of consumers the price benefits to which it is entitled on grounds of its location, and size and pattern of demand, in relation to the cost conditions under which the production and selling activity concerned takes place. Not to do so flouts, without logical reason, the fundamental claims of one's eligibility to one's own natural advantages. (It is not denied that circumstances may exist in which to qualify the eligibility, but these have to be indicated by some governmental authority, and in fairness to the consumers affected, the advantages expected of the qualification should be capable of reasonable demonstration.)

Assume that an enterprise divides its market into three parts, by product, region, or consumer group, and that the respective cost functions in the range of outputs supplied at a given time in those markets are represented by C_1 , C_2 and C_3 in the following diagram. If, instead of price differentiation there obtains a single uniform price P in all the markets, a consumer in the market M_3 who wishes to have more of the product by offering a price of P_3 is denied the additional consumption, though the price he is willing to pay more than covers the related costs. Likewise the consumers in market M_2 will be unable to get more of the product even at a higher price P_2 , since it falls short of the uniform price

though it stands above the related costs. It is only when the price that a consumer is willing to pay for the additional output, assuming no change in the cost function, exceeds the price P that the prospect of increased consumption holds good. Strangely at the slightly higher price of P_1 the consumers in market M_1 are at once enabled to enjoy a larger consumption of the product, though even the new price happens to be lower than the related costs. These inequities will disappear if the three markets are considered as different pricing units.

It follows that a proper demarcation of the pricing unit leads to an expansion of output in those products, regions, or markets in any other sense, where the commercial desirability of expansion is demonstrable, and prevents an undue over-expansion in the other areas. This is basic to the establishment of helpful investment criteria within an enterprise. Besides, it is of no small advantage to the management itself in the case of capital budgeting.

Logically it can be argued that, to the extent that reasonable demarcations of the pricing units within a public enterprise do not take place, the resources of the nation get allocated in an arbitrary or less-than-the-best way. Where the actual allocation is not supported even by the important criterion of social desirability, the mal-distribution of resources is objectionable from every point of view.

The factors that hamper the demarcation of suitable pricing units within an enterprise may be described as follows.

(a) Public enterprises are usually large organisations. Though there exist some very large private units and some very small public enterprises, on the whole the bias of large organisation is inherent in the public sector. A simple piece of evidence lies in the widely varying average sizes of the companies in the public and the private sectors. During 1960 the average size of ~~the~~ a new company, in terms of capital was Rs.3.8 crores in the public sector or Rs.1.4 crores, if the Rs.300 crore Hindustan Steel Ltd. is left out of the calculation, as against Rs.4 lakhs in the private sector.¹ The concept of large organi-

¹ There were 125 government companies with a paid-up capital of Rs.468.4 crores and 2,6796 non-government companies with a

sation is partly in terms of the share of the enterprise in the market or industry concerned. A public enterprise may be large in three senses. It may be multi-region, multi-plant or multi-product in nature. Though these are not new categories coming into existence because of public enterprise, the frequency of such organisations is greater in the public sector. Examples of multi-regional enterprises are the Life Insurance Corporation, the Road Transport Corporations, the Railways, the Warehousing Corporations, and the Indian Airlines Corporation. An interesting point about the category is that, in many cases, industries originally organised regionally and on a non-monolithic basis, have, after nationalisation, been multi-regionally as well as monolithically organised. To the extent of such deliberate change, the elements of large organisation are new and more extensive than before. The multi-plant undertakings may be illustrated by Hindustan Steel Ltd., Fertiliser Corporation of India Ltd., and Hindustan Insecticides Ltd. Such organisations do exist in the private sector too. It is, however, necessary to emphasise a unique recent trend, namely, the unification of units that formally operated as independent units - e.g., the fertiliser plants and the shipping undertakings. Thus the forces of combination are stronger, more deliberate and easier to take effect in the public sector. It is likely that the greater the expansion of the steel industry or the fertiliser industry in the public sector, the larger the multi-plant characteristics.

(Footnote continued from previous page)

paid-up capital of Rs.1,124.7 crores in 1960, according to The Corporate Sector in India: A Factual Presentation of Long and Short-Term Trends, by Raj K.Nigam and N.C.Chandhuri, Company Law Administration, 1960.

Examples of multi-product public enterprises are yet few. (In this country multi-product organisations are fewer than elsewhere, even in the private sector. For example, there is nothing so big as the Imperial Chemical Industries Ltd. of U.K. here.) Hindustan Machine Tools Ltd., now extending to watch making, Hindustan Aircraft Ltd., manufacturing planes as well as railway coaches, and State Trading Corporation of India Ltd., operating in several unrelated fields of monopoly trading, may be cited as illustrations.

At this stage it will be helpful to give an illustrative account of the nature of pricing units into which enterprises coming under the above description subdivide themselves. The State Electricity Boards generally maintain revenue records regionally, but not the corresponding cost records. To some extent the technical difficulty of regional cost division is understandable; but this alone does not explain why no attempt even at broad regional allocations of cost has been attempted by many Boards and why the experience of foreign electricity undertakings, such as the British Area Boards and sub-area, in this field has not been purposefully studied. There is a tendency for the Road Transport Corporations to operate in terms of a uniform fare over the entire - in some cases, very wide - areas served by them. Till early in 1961 the Andhra Pradesh State Road Transport Corporation did not try to analyse its financial position regionally; the recent attempts have been at the instance of the Estimates Committee of the Andhra Pradesh Legislature, and a special committee of enquiry. The accounting regionalisation of the railways is limited to the zonal level - even

here during 1952-54 the apportionment of earnings and costs among the zones was considered unnecessary and given up; no further cost imputations to regions or revenue heads are attempted. It is not easy for the public to know how the price-cost relationships stand on a branch line or in a wider section below the level of the zone itself. In the case of State Trading Corporation of India Ltd. commodity-wise accounts were published in 1956-57, though the practice was replaced by "a summarised account" in the next year. This keeps away from public notice the nature of losses sustained in certain respects, as against the profits in others and we have no way of being confident that the losses and the gains are both appropriate to realise and that no undue inter-consumer and inter-product subsidisation takes place.¹ The Estimates Committee's observations on its losses on soda ash during 1956-57 as well as 1957-58, create enough room to suspect that the pricing policy followed in respect of soda ash was not a conclusively justified one. The Indian Airlines Corporation is another interesting example of widely spread operations characterised by widely varying degrees of price-cost relationship. On some routes not even the "direct costs" are recovered; and "all the freighter services" were run at a loss during 1956-58.²

In all these cases an inter-consumer shift, either by product or by region, is involved, and is derived mainly from the largeness of the unit of organisation, unaccompanied by statutory or any other stipulations as to how the diverse consumer

¹ Even the Minister refused to give information on commodity-wise profits of the State Trading Corporation of India Ltd. "in the interests of the Company" while answering a question in Lok Sabha, Vol. XXXII, Question No. 309, 1959.

² The freighter losses amounted to Rs. 19.48 lakhs in 1956-57 and Rs. 18.09 lakhs in 1957-58, Public Accounts Committee, 1959-60, P.A.C. 52-II, p. 102.

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Following The financial data, by groups of routes, show in columns 2, 5, and 8, the profit or loss of the Corporation on each group in the three years 1957-60; in columns 3, 6, and 9, profit or loss as percentage of the costs of the group; and in columns 4, 7, and 10, the relative share of a group in the total overall loss. These give us a general idea of the varying cost-revenue relationships in the different distinguishable markets of the enterprise.

¹ The freighter losses amounted to Rs.19.48 lakhs in 1956-57 and Rs.18.09 lakhs in 1957-58, Public Accounts Committee, 1959-60, P.A.C., 52-II, p.102.

TABLE

ROUTE PROFITABILITIES

Route group	1957-58			1958-59			1959-60		
	Profit or loss	Profit or loss as % of cost	Profit or loss as % of total loss	Profit or loss	Profit or loss as % of cost	Profit or loss as % of total loss	Profit or loss	Profit or loss as % of cost	Profit or loss as % of total loss
1	2	3	4	5	6	7	8	9	10
1. Trunk Routes	-10.56	3.8	9.1	+ 12.10	+ 3.0	--	+38.90	+ 8.3	--
2. Night Airmail Service	+17.90	+13.6	--	- 19.04	11.7	14.9	-27.16	17.4	21.5
3. Bombay-Saurashtra	-24.04	41.3	20.8	- 21.02	37.1	16.4	-21.74	37.9	17.2
4. Bombay-South (DC-3)	-10.24	19.4	8.8	5.91	10.0	4.6	-5.61	18.7	4.4
5. Madras Regional Service	-16.98	25.9	6.0	- 7.55	19.6	5.9	-11.30	21.5	8.9
6. Calcutta-Assam (Pax).	-31.92	24.2	27.5	- 22.30	18.4	17.4	-22.23	18.5	17.7
7. Calcutta-Assam (Prt.)	-24.16	23.9	20.8	- 23.03	19.0	18.0	-23.92	19.3	19.0
8. Other Calcutta Pax. Services	- 7.04	13.3	6.1	- 10.80	23.2	8.4	-18.05	38.2	14.3
9. Delhi Regional (DC-3)	-20.98	20.4	18.1	-19 .84	22.5	15.5	-23.34	23.5	18.5
10. Delhi Regional (Heron)	-13.81	73.25	11.9	- 13.18	77.8	10.3	-12.10	22.9	9.6
11. N.E.P.A. Contract	+0 .14	2.8	--	0 0.64	1.7	0.5	- 1.70	3.6	1.3
12. Charters and Non-	+15.40	+26.6	--	+ 2.97	+ 7.0	--	+ 2.26	+ 4.5	--

Per 1957-58 the figures are actuals, for 1958-59, estimated results and for 1959-60 budgeted results.

Source: Report on the Cost Structure of the Indian Airlines Corporation, 1959.

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In all these cases an inter-consumer shift, either by product or by region, is involved, and is derived mainly from the largeness of the unit of organisation, unaccompanied by statutory or any other stipulations as to how the diverse consumer

interests may be dealt with inter se. The inter-consumer subsidies flowing from the operations of the Indian railways are probably so serious as to require a special study.

The reason why pricing units within a large public enterprise are not demarcated and why inter-consumer subsidisations consequently take place continuously, is that there is limited prospect of entry by outsiders into the industry. Sometimes the ban on entry is statutory; more often it results from the shyness of private units coming into an industry dominated by public undertakings. Being free, in this way, from an important challenge of competition, a public enterprise is able to retain to itself the demands which are denied their due price benefits. For example, the buyers of cement cannot turn to any other agency than the State Trading Corporation of India Ltd. nor can road passengers in a densely trafficked region, monopolised by a state undertaking, look to a private operator for the benefits of low fares which - let us assume - the traffic conditions of the region can make possible.

The concept of a uniform price seems to have gained wide currency in the public sector; though it is not sufficiently realised by many that its main justification rests on non-commercial considerations.¹ It is not proposed to go elaborately into this question in the course of the present discussion; it may be concluded briefly that, wherever uniform prices do not spring from uniform cost conditions, they constitute an unnoticed medium of inter-consumer shifts of benefit.

¹ For a full discussion of uniform pricing see Professor R.H.Coase's "The Economics of Uniform Pricing Systems", Manchester School, 1947.

It is true that the commercial operations of private enterprises are not totally free from such shifts. However, the shifts that persist are those that survive the rigorous tests of competition which continuously diverts the "cream" markets to lower-priced new entrants. Besides, the arms of monopoly control gradually extend to the detection as well as the elimination of undue discriminations as far as practicable. In any case, an unnoticed or unremedied practice of private enterprise is no precedent for the public sector; it may be remembered that the inter-consumer discriminations, when practised by a public enterprise, can be more deliberate and less controlled.

The concept of the pricing unit has a great purport in the realm of price control over public enterprises. An important requisite of price control is the location of inequities in the price structure, vis-a-vis a consumer or group of consumers, given his or their conditions of demand as against the related conditions of cost. In this task the agency of price control has to proceed on data analogous to the concept of a pricing unit suggested here.

To conclude on the pricing unit, the desiderata are (a) that large public enterprises ought to undertake cost allocations to the maximum extent possible,¹ (b) that the spirit of competition ought not to be suppressed among the distinctly demarcatable units within an enterprise, (c) a holding-company type of organisation, identifying, if not maximising, the financial potentialities of each unit, is preferable to a completely monolithic structure, and (d) that the relativities² between the price-cost ratios of the different pricing units

have to be fixed, if otherwise than at parity, on internal grounds of capital formation and, more importantly, in consultation with the government or the Public Enterprise Commission (suggested already.)

6. PRICING AND TAXATION

Public enterprise pricing is closely related to the question of taxation. The government's expectations of income from an enterprise or industry may be effectuated in two ways: by levying a tax on the product, or by allowing the price to operate in favour of profits high enough for transfer to the government. The two aspects of tax elements in pricing are, firstly, that the enterprise raises a revenue far in excess of its own needs, with the intention of contributing large amounts to the public exchequer and, secondly, that the enterprise operates price differentials whose basis does not lie in reasonably demonstrable cost differentials. In the former case the consumers as a whole are made to pay a tax revenue through the price, whereas in the latter some consumers, alone or more than the others, are made to contribute towards the government's tax revenues through the price differentials.

The essential point that differentiates a price from the tax elements is that the price strictly is to be determined on the basis of the related costs, the appropriate price-cost relationships being determined by the internal revenue considerations of the enterprise, whereas the tax elements can be quite arbitrarily determined. To isolate the tax elements from the price as far as possible has the following advantages.

(i) The managers of a public enterprise are not chosen for their ability in the field of taxation and the considerations underlying tax-inclusive pricing are not the same as the budget authority is likely or trained to take into account.

(ii) The tax elements contained in the prices do not result from a formal discussion by the representatives of the community, as in the case of the budget in Parliament. There is no guarantee that the consumers paying high prices that include tax elements deserve the treatment.

(iii) The isolation of the tax elements from the prices will enable the consumers to apportion responsibility for high prices between the managers and the government. This favourably influences the consumer relations of the enterprise.

(iv) The pricing tribunals and the Public Enterprise Commission can proceed on a clear ground when adjudging the financial performance of a public enterprise.

(v) The great danger of the government applying informal pricing pressures on the managers can be avoided if the position is formalised into one of prices being fixed by the managers and the tax elements being separately determined at the government's instance.

It is, therefore, preferable to limit the price basis to the revenue requirements of the enterprise, inclusive of capital formation and re-investments. Even where unlimited amounts are sought to be ploughed back, the present consumers suffer for the sake of the future consumers. In any case the shift of benefit that takes place is intra-industry though inter-period, in nature. Whereas, prices that provide for

profit transfers to the public exchequer involve shifts of benefit and income re-distributions among unrelated consumer groups. To the extent that such a re-distribution is deemed necessary, the government may devise a more open system of taxation.

7. CONTROL OVER PUBLIC ENTERPRISE PRICES

As a prelude to the discussion on control over public enterprise prices, we may make a brief review of the varying pricing practices¹ adopted by them today. These may be classified as follows.

(A) Pricing practices

(a) Prices subject to governmental fixation: The prices of certain commodities, such as steel, fertilisers and cement, are subject to governmental fixation. The fixation takes place on the recommendations of the Tariff Commission or specialised agencies such as the Fertiliser Pool. The reason for such price fixation is not that all the producers or sellers are in the public sector but that the government desires to regulate the prices of certain essential commodities, produced in either sector. The characteristics or processes of price fixation are not, therefore, directly related to the principles of public enterprise pricing, except for the possible influence that the public enterprises, constituting the major bulk of an industry, may have. Their cost efficiency or profit targets may affect the price fixation. For example, the recent enhancement of fertiliser prices might have been due to the commercial adversity of the major public sector undertaking at Sindri.

(b) "No-profit, No-loss" prices: Hardly any public corporation Act upholds the "break-even" principle as the pricing criterion; yet a few enterprises, such as the State Electricity Boards of Bihar and Madhya Pradesh, seem to work in terms of prices that result neither in a profit nor in a loss. Among the manufacturing units, which work on this principle, may be cited the Hindustan Insecticides Ltd. (Delhi branch). It is difficult to assert in how many other cases the break-even criterion is adopted, in the absence of even a reasonable description of the pricing practices in their annual reports.

(c) "Cost-plus" prices: The Indian Telephone Industries Ltd., and the Hindustan Aircraft Ltd. adopt this principle. The main reason seems to be that the government is the major consumer of their products and is interested in paying prices bearing a definite and low relationship to the costs. The cost-plus criterion is of value in the early years of an enterprise, when the full measure of cost efficiency is not realised. But in the long run it can operate as a protection for inefficiency, since the enterprise is sure of realising through the price whatever costs are incurred by it. If the cost-plus principle is to have justification as a permanent practice, it ought to be accompanied by a strict assessment of the cost efficiency of the enterprise - not by a government department, though standing in the relationship of a consumer, nor in a routine and superficial manner.

(Footnote of previous page)

- 1 Many of the facts presented in this section are derived from the undertakings concerned.

(d) Profit-oriented prices: Though from the fact that profits are realised by an enterprise it may be construed to have followed a policy of profit-oriented prices, it is difficult, in many cases, to assert the level of profit actually aimed at. In the absence of such information, one can never compare the actuals with the aims; the one fact that remains is that a certain amount of profit has been realised. Examples of undertakings which seem to have consciously aimed at a 10 per cent profit are the Bharat Electronics Ltd. and Nahan Foundry Ltd.

(e) Subsidised Prices: All the losing enterprises may be placed in this category, since the prices are subsidised in effect by the taxpayer in one way or another. Some of these undertakings are clearly considered as eligible to the subsidy, while the others are not. The Hindustan Shipyard Ltd., belonging to the former category, adopts the basis of the "U.K. parity" price. This is not scientific and the ship-owners have been asking for its replacement by the international parity price. In actual practice the price is determined through negotiation between the Company and the ship-owners, the difference between the negotiated price and the cost being paid by the government as a subsidy.

Pricing on the part of losing enterprises is a complex problem, especially where the process of subsidisation is desired not to nurse inefficiency. The offer of a fixed rate of subsidy, either per ship or per a quantum of cost, is of limited value; though it may indicate to the managers that the government expects further financial shortfall, if any, to be made good by internal improvements in productivity and efficiency, there is nothing to be done, when further deficits do occur, except for

the government to continue to add to the subsidy or, if the mechanism of a moratorium is adopted, to write off the sums at a subsequent stage. The problem goes deeper than this. In the private sector a losing enterprise liquidates itself; whereas in spite of the liquidation of a public enterprise, the taxpayer continues to suffer from the governmental guarantee of capital and interest.

(f) Competitive prices: Many of the state government enterprises and some of the central enterprises, operating in competitive markets, have to take whatever prices the market offers. However, the competition is of nominal significance in several cases, either because the public enterprises, such as the Hindustan Machine Tools Ltd. are the most important constituent of an industry, or because an industry as a whole has a sellers' market. Real competition is experienced by such enterprises as the Shipping Corporation Ltd. and the Ashoka Hotels Ltd.

It may be concluded that the pricing practices in the public sector have not been based on principles of consistency among the different enterprises and that in the generality of cases the results obtained through a pricing policy are not the results of conscious policy.

At this stage it may be noted that there are but few references in the public corporation Acts to pricing principles. Section 7(1) of the Air Corporations Act, 1952, speaks of "reasonable charges"; Section 59 of the Electricity (Supply) Act, 1948, seems to disapprove of charges that lead to losses, and Section 46 lays down certain details of the "grid tariff". Apart from these exceptional references, the Acts offer no positive indication of pricing criteria. In the case of the government

companies such inadequacies are more prominent.

B. Price control

The question of price control is closely related to that of profits regulation. The latter has already been discussed in the previous chapter. We shall concentrate here on the aspects particularly relevant to the control of prices, as against the profits.

In the first place, price control is necessary in order to ensure that the target of profit fixed for a public enterprise is realised through the medium of prices that are the lowest possible and of outputs that are the largest possible, consistently with the target. Thus the mere regulation of profits proves inadequate from the consumer's point of view. It ought to be supplemented with price investigations.

Secondly, price control has to establish whether the prices, apparently oriented to a given target of profit, are reasonable in the sense of being derived from the conditions of efficiency. The two aspects of the latter criterion are that the revenue expenditure programme ought to rest on efficiency in production, selling and management, and that the capital employed and the capacity provided are the necessary ones, vis-a-vis the outputs in question, with due allowance for short term fluctuations in the demand. The relevance of this point will be clearer if we recall some earlier observations on capacity installation in the capital-intensive public enterprises.

Thirdly, it should be a specific and major function of price control to examine whether the pricing structure adopted by an enterprise is the best possible, consistent with its price level and profit target. This raises the questions of the pricing unit and inter-consumer discriminations.

The need for price control over the public sector is no less than that over the private sector. In so far as it derives from monopoly considerations, it continues unabated; if anything, it is intensified by the other circumstances of public enterprise organisation and operation, as illustrated earlier in this chapter. There are two misconceptions that do not stand scientific analysis, namely, that the elimination of the private capitalist, who enjoys the profit raised through high prices, removes the need for vigilant price control in the public sector, and that the government and its appointees on the boards of public enterprises may be trusted to behave in the interest of the consumer.

It will be unfair not to look at the limited consideration positively given to the consumers' interest in the statutes on public enterprises and the little provision made for price control over the public sector, in the broader context of economic administration in the country. No specific monopoly control has yet been devised in India, unlike in the United States where the Federal Trade Commission undertakes it and in the United Kingdom where the Monopoly Commission and the Restrictive Practices Court are set up to check monopoly and restrictive practices. Public enterprises have begun to assume

preminence at a time when even with reference to the private sector a strong machinery for dealing with monopoly power is absent; what is essential now is to realise that the problem of monopoly is worth dealing with, though it arises in the public sector. Essentially the interest to be protected is that of the consumer and it little matters to him whether the enterprise operates in the public or the private sector.

A purposeful and independent machinery of monopoly control over the public sector has the welcome advantage of appraising the taxpayer of all those cases where the financial performance of an enterprise is too low for prices compatible with the consumers' interest, without a subsidy from the exchequer. In other words, the pathology of a losing enterprise can be accurately gauged, so that the taxpayer can decide whether the cost of subsidy shouldered by him is a legitimate or necessary one.

The Railway Rates Tribunal is the only price controlling agency in existence in so far as the departmental organisations are concerned. It has very limited functions and cannot investigate questions of general rate level or even the rate structure. As regards the public corporations, the Air Transport Council is the only advisory body, set up under the Air Corporations Act, 1953, to investigate, at the request of the government, "any matter relating to the fares, freight rates or other charges levied by either Corporation" (Section 31). Even this inadequate agency is likely to be abolished as a permanent agency.

Thus there is too little provision for statutory control over public enterprise prices in India.

C. Administrative aspects

In conclusion, we shall examine the administrative aspects of price control.

(a) Primarily the Acts of public corporations ought to be revised so as to indicate the desirability of pricing on the cost basis in all those cases where the enterprises are intended to operate "on business principles". Wherever a deviation is felt desirable, the Acts may suggest the nature of the deviation as well as the criteria of applying it to particular situations.

(b) The form of organisation of a public enterprise, for example, public corporation, government company or departments organisation, ought not to make any substantive difference to the principles of pricing and price control, though in the case of the departmental undertakings there is a tendency for greater direct intervention by Parliament. It will be desirable to bring all public enterprises, including the departmental ones, under a well-deliberated overall structure of price control.

(c) There ought to be a price tribunal for every major public enterprise, especially where the public enterprises occupy a significant position of monopoly in the industries concerned. For the other public enterprises there may be a common price tribunal or a few tribunals, each one concerned with a broad category of enterprises. (If the designation of "tribunal" seems to be incompatible with the qualifications to its independence proposed in (f) below, any other term such as price control board, may be employed.)

(d) Common principles of price control have to be applied to the state and the central enterprises, since it makes little difference to the consumer whether the product he consumes is produced by the state government or the central government. Incidentally the establishment of uniform principles of an inter-state and state-central character has the advantage of placing all consumers in the country on a par with one another in respect of the price deal they can expect from the public enterprises. To make the point clearer, the consumers of all regions will be equally enabled, for example, to ask for an efficiency challenge as a preliminary to proposals of price enhancement.

(e) Consumer councils may be established, as in the case of Great Britain, at least for the major public utility industries.

(f) The Public Enterprise Commission, whose establishment was suggested in the previous chapter, may operate as the converging point for the price tribunals' activities. Since the Commission will have an important role to play in the enunciation of profit targets, it will be logical for it to have an overall co-ordinating role in the realm of price control as well, for, the questions of profits and prices are inter-related at several points. Further, if the Public Enterprise Commission stands at the apex of the price control mechanism there can be a guarantee of uniformity in the approach of public policy to public enterprise pricing, whether of central enterprises or of those of any state government. So the price tribunals may operate as the specialist (and federated) wings of the Commission, relieving it of the details of expert work on pricing matters of individual enterprises while

working under the principles and criteria set by it. The Commission by itself will then not miss the wood for the trees, while the tribunals will ensure that, at their level, the trees are not missed for the wood.

(g) Another function of the Public Enterprise Commission may be mentioned in conclusion. Certain public enterprises are expected to shoulder social responsibilities of which periodical enunciation ought to emerge from the government or Parliament. The responsibilities are discharged mainly through the output and pricing policies. These, therefore, tend to be under the composite influence of commercial and non-commercial considerations. How the two are combined and whether in ultimate result the enterprises concerned are able to give an adequate account of themselves in respect of the social responsibilities placed on them, are matters which have to be examined from time to time. Another version of the argument is that the compatibility of public enterprise operations with the overall socio-economic policies of the government has to be assessed periodically. In ^{the} many fields where enterprises are under no logical impact of the government's social policies, the assessment will be of nominal value; whereas in the other cases, particularly the public utilities, they assume importance. Instead of Parliament, the Public Enterprise Commission may be an appropriate agency to undertake the work, though the final verdict on its findings may come from Parliament. The assessments, it may be noted, may come once in some five or seven years in the life of each major public utility or basic industry.

A word in the end regarding the Public Enterprise Commission. It may appear that the functions outlined for it

make it not only an important body but one weighed with heavy responsibility. If one uses these as points of criticism at the idea of the Commission, the simplest answer is that it is implicit in the growth of the public sector in India, that some one must do the work and bear the heavy responsibility suggested here for the Commission. In the absence of a Commission of this type, the work and the responsibility get concentrated in the government. It is doubtful whether we should entrust these to the executive wings of the government itself; it is even more doubtful whether the responsibility will then be adequately discharged in the substantive sense.

To conclude: The relationship between profits and prices of an enterprise is not simple; and the latter call for special attention distinctly from the former.

Public enterprise prices differ in motivation from those of private units. Their supply conditions place them, inherently and particularly in the present circumstances of their organisation in India, under a bias of high cost on the whole. It is necessary for us to examine all possible and reasonable ways of minimising their cost excesses.

The diffusion of responsibility between the government and the public enterprise respectively for the pricing policy and the price structure presents complications in practice. Every effort must be made to uphold the dichotomy between these aspects.

Price has an important function in the Indian pattern of economic organisation, in promoting adequate capital formation, offering investment criteria and making the lowest cost structures possible. No price should innocently operate as a tax. Pricing is most efficient when related to each sub-unit, as against the totality, of an enterprise. Or else unnoticed tax elements develop in the pricing structure.

The need for price control does not diminish with public enterprise; perhaps it is greater for certain reasons. The Public Enterprise Commission, suggested earlier, may be entrusted with the formulation of principles of price control and of effectuating the translation of the profit targets of an enterprise into prices and price structure.

CHAPTER FOUR

THE FINANCIAL ORGANISATION

The term financial organisation is likely to connote several ideas. It is, therefore, proposed to indicate, at the outset, the questions covered in the present discussion.

1. THE CONCEPT OF FINANCIAL ORGANISATION

(a) The connotation

The discussion relates mainly to the structural aspects of public enterprise finances and is allied to economic criteria rather than accounting procedures. The matters excluded may be indicated first: internal questions relating to the financial procedures of expenditure etc., internal organisation in the field of finance and accounting, for example, the role of the Financial Adviser, the system of accounting, internal audit, cost accounting, annual audit, and, in particular, the efficacy of full audit or test audit by the Comptroller and Auditor General. Nor are we concerned here with the presentation of financial information and the form of financial statements submitted annually, or with such inconsistencies in accounting practice as the inclusion of a given item in the profit and loss account by some public enterprises and in the profit and loss appropriation account by others. The question of what 'limited' meaning the annual financial statements presented by the public enterprises today tend to have for the economist is not directly within the purview of the present chapter, though brief reference to this aspect may be made at certain places - in the last section in particular.

The questions considered here may now be outlined; the capital structure or the pattern of long term funds obtained by a public enterprise and the mechanism of rewards on the investments; the procurement of capital, particularly as to source and timing; the effectiveness of utilisation of resources, with special reference to the assessment of the economics of a project, capital budgeting, the efficacy of estimating the financial requirements of a project, the phasing of capital expenditures, investment choice among alternative possibilities of project composition, and the diffusion of responsibility for the effectiveness of resource use between the government and the public enterprises; and the nature of consistency among the public enterprises in those matters where consistency is desirable and can be promoted.

At this stage two qualifications may be mentioned regarding the examples cited from the experience of certain public enterprises in the course of the discussion. First, let us forget the identity of the example, since our main purpose is to build up the argument of financial organisation. Secondly, there can be two sides to many an instance cited here; yet the citation is made because the practice under comment is of sufficient content from the angle of an economic principle. The illustrations are entirely neutral to the aspect of personal honesty on the part of those responsible for them.

(b) The principles

The discussion may be prefaced with a brief statement of the basic principles which the financial organisation of the public enterprises is to subserve.

(1) The financial organisation of the public enterprises, in the several senses in which the concept is developed in the present discussion, is to contribute to the realisation of the pricing and the profits objectives enunciated in the earlier chapters. In other words, the structural arrangements in the field of finance must enable every enterprise to work automatically towards the pricing and profits policies declared as appropriate to it. The role of administrative agencies in this respect is bound to be limited, if not purposeless, if the financial framework within which a public enterprise operates is itself not conducive to the realisation of the pricing and profit ends.

(2) To emphasise one of the aspects broadly covered by the above dictum, the financial organisation ought to be conducive to the right allocation of the nation's resources. This is to take place not only at the time of initial formulation of priorities among investment opportunities, but through the continuing medium of capital utilisation, revenue budgets and periodical changes in capacity in either direction.

(3) The financial organisation of the public enterprises ought to be compatible with the national financial policies. Broadly an efficient government ensures that all economic activities, whether in the private or in the public sector, are compatible with its overall policies at any given time. However, the compatibility is to be specially strong in the case of the public enterprises, for at least three reasons: (a) the government has to devise taxation and pricing as alternative or suitably supplementary instruments with reference to the public enterprises; (b) the government has

to regulate the raising of capital by the public enterprises in view of its ultimate responsibility, through guarantee, for the payment of interest and principal; and (c) the government may have to weild the expenditure programmes of the public sector complementarily to those of the private sector in certain circumstances, decreasing the quantum when the outlays by the latter are in boom and intensifying the outlays when the latter are in slump.¹ (The third reason is perhaps of limited significance under the current conditions of planned expenditure in India.) The requisite of compatibility may be expressed in its negative aspect: the public enterprises, in their privileged circumstances, ought not to act in a way that clashes with the overall national interests such as a properly phased and conserved utilisation of foreign exchange resources. In fact the need for utilising funds with the maximum economy is an inherent qualification to the very success of the Indian plans of economic development; and the financial organisation of the public sector should not be such as to disrupt that objective.

(4) Public enterprises ought to be provided with a financial organisation which guarantees them with adequate financial autonomy, consistent with the necessary degree of governmental influence. The latter is to relate mainly to the capital budgets and the major policies of pricing and profit-

1 For instance, the British White Paper on Employment Policy (Cmd.6527) emphasised that "for the purpose of maintaining general employment it is desirable that public investment should actually expand when private investment is declining and should contract in periods of boom".

making. The real implication of this principle is that the public sector ought not to operate as an un-noticed or unintended means of convergence of all financial decision in the government; instead, an adequate dispersal of financial decision among the independently organised units of the public sector has to be preserved.

(5) The financial framework of the public enterprises ought to provide for sufficient consistency in the financial behaviour among different enterprises. This does not call for bluntly standardised pricing and profit-making practices, but does emphasise the propriety of uniformities in such substantive matters as the provision of depreciation, the provision of interest on capital and welfare expenditures. In the absence of such uniformities, we can never know from the figures of net profit (or loss) of two enterprises whether they are fully comparable in drawing useful deductions on their financial performance.

In the course of the discussion we shall have occasion to comment on the present practices in the light of these criteria.

(c) Asymmetry between the two sectors

The purposefulness of the discussion on financial organisation is greater with reference to the public sector than for the private sector. The reasons are as follows.

(i) In the public sector many elements of financial organisation are the product of deliberate decision on the part of some governmental authority. Though the limitations of monetary policy, balance of payments policies, foreign exchange rationing, industrial licensing and control of capital issues, equally constitute a given network of external decisions for a public undertaking as well as a private undertaking, the former is under an additional impact of external decision, the like of which does not operate on its counterparts in the private sector, in such aspects as the composition of the capital structure, the phasing of capital expenditure, the provision of depreciation, profit appropriations, and the choice of source of capital, and uniformities in financial practice among different units. In all these respects every private enterprise is theoretically, and, to a substantial extent, practically, under its own volition. This is why it is necessary for us to discuss whether the financial organisation set for the public enterprises is of the best order.

(ii) Whatever the financial framework that a private undertaking formulates for itself, it is capable of prompt correction, whenever necessary, because of the driving force of self-interest on the part of the investors. Subject to all the diminutions in the shareholder's role that have progressively taken place, this remains broadly true. The public sector, on the whole, lacks comparable strength in such a corrective force¹.

¹ For instance, the Public Accounts Committee of the Mysore Legislature, 1958-59, observed with reference to the cast iron spun pipe plant of the Mysore Iron and Steel Works, that "after going through the records, the Committee was convinced that the higher officers in charge did not bestow proper attention in initial planning".

Hence the need for designing a suitable financial framework, which takes over part of the responsibility shouldered by the element of personal interest and initiative in the private sector.

(iii) Public enterprise is a relatively new institutional experiment; and the right conventions of distribution of financial responsibility among the government, administrative tribunals, and the public enterprises are yet to be built up. There is the additional complication that a single authority possessing the highest power in the country, viz., the government, has to formulate its financial relationships with a large number of undertakings operating under diverse conditions, economic and non-economic. The position is further complicated in India by the exigencies of foreign exchange allocation and the targets set by the plans. An advantage that the British public enterprises have and the generality of the Indian public enterprises do not, is the long established financial conventions on the part of the enterprises; for, there has generally been nationalisation of long established enterprises in Britain, while many of the public enterprises in India have been sponsored for the first time. This intensifies the need for building up a suitable financial organisation de no-vo.

2. THE CAPITAL STRUCTURE

A. The pattern of capitalisation

The relationships between equity capital and bonded debt varies diversely as between the public enterprises. For

the 22 industrial undertakings completed and in full operation, listed out in the C.S.O.'s publication referred to in the first chapter, the total borrowings were about 35 per cent of the total paid-up capital in 1959-60. Among those with higher ratios in that year were Hindustan Cables Ltd. and Sindri Fertilisers and Chemicals Ltd. Next in order came Hindustan Machine Tools Ltd., National Instruments Ltd., Hindustan Insecticides Ltd., and the Nahan Foundry Ltd., On the other hand, enterprises such as Hindustan Antibiotics Ltd., Praga Tools Corporation Ltd., Bharat Electronics Ltd., and Orissa Mining Corporation Ltd., had no bonded debt.

The purposefulness of the relationship between equity and debt capital may be understood by examining the reasons why industrial and commercial undertakings seek to procure funds usually through both the media. There are at least three reasons in the private sector. Firstly, if high profits are realised, the limited interest charges on capital debt will enable large dividends being enjoyed by the equity holders. Secondly, the debt capital can be repaid either when sufficient reserves are accumulated or when a contraction in capacity is contemplated. Equity capital on the other hand, cannot be repaid under the Companies Act. Thirdly, the procurement of debt funds keeps undiluted the equity holders' control over the company's policies, for the suppliers of debt capital have no voting rights. These reasons have nominal value under the present conditions of the public sector. Most of the long term loans are derived from the government; and equity trading is of limited value in that the government

gains through high dividends on its equity capital what it loses through ~~high~~ low interest on its loan capital. It is where the debt capital is procured from non-governmental sources at fixed and relatively low rates of interest that trading on creditor funds can be of significance.

It is doubtful whether the repayment of the debt capital is a probable event in the ~~fore~~^{see}able future in the life of many a public enterprise. For one thing, expansion is the feature of most of the enterprises and, for another, the prospect of re-investments may not be so great as to enable them to pay back the long term debt capital. For the best disproof of such a prospect, we may turn to the Estimates Committee's doubt, with reference to the huge loan capital of Hindustan Steel Ltd., whether it would be in a position to repay it "in the foreseeable future".¹

The last reason mentioned in the context of the private sector has little application to the public enterprises; for the government's position of control over them can never be diluted by an expansion in the equity capital, of which a minimum of 51 per cent is bound to remain with it as long as the undertaking is a government undertaking.

Empirical evidence, strangely, indicates that the public enterprises should not prefer emphasis being placed on the loan capital; for the loan carries an interest which is charged to the revenue account, whereas the dividend on equity capital is an appropriation of the profit. Whether the undertaking

¹ Estimates Committee, 1958-59, E.C.No.103, on Hindustan Steel Ltd., p.49.

makes a profit or not, the interest charged is a fixed commitment. An undertaking making low profits or sustaining losses should therefore be glad to have the highest possible ratio of equity to ^{total} capital. For example, the Mahan Foundry Ltd. proposed to the government the conversion of its loan Rs.7.5 lakhs into share capital, because, "though the profit of the Foundry in 1958-59 was expected to be about Rs.one lakh, this return was not considered adequate on a total paid-up capital of Rs.40 lakhs and, therefore, it was thought that, if this loan was converted into share capital, the Foundry would be saved of the interest charges thereon and thereby a direct charge on the gross profit would be reduced."¹ Another example of the conversion of loans to equity capital to the tune of Rs.17.75 lakhs occurs in the financial re-organisation of the Praga Tools Corporation Ltd.

Where the loan capital is of importance, the device of interest-free loans has been adopted in recent years. The Hindustan Steel Ltd. has borrowed Rs.300 crores from the government, free of interest. The burden of interest charges that loans may involve is totally removed; the relief works out at no less than about Rs.15 crores a year. The Indian Airlines Corporation, to take another example, has 50 per cent of its capital made up of loans on which the interest of 4½ per cent capital is waived up to the 1st of October 1966.²

1 Public Accounts Committee, 1959-60, P.A.C.52-II, Volume II-Report, page 59.

2 Seventh Annual Report, 1959-60, Indian Airlines Corporation, page 16.

The predominance of equity capital, in the generality of the public enterprises, has led to the unfortunate result of not giving the public an accurate impression of the returns foregone from several of them; for, a dividend not received does not enter the profit and loss account, unlike interest not paid but outstanding. Further, year after year there is no "carry forward" of the unpaid dues of dividend since there can be no such on equity capital; so that, if one looks at the financial accounts of an enterprise which did not pay dividends for say ten years, one does not know what the enterprise has really meant in terms of finance costs all along. Very few public enterprises have declared dividends in recent years; some of those that did not, have been accumulating reserves, while others have not had enough profits for the purpose. It should be interesting to adduce some factual data on these aspects. Among the profitable enterprises with sizeable reserves, let us start with the Hindustan Antibiotics Ltd. At the end of 1959-60, it had a total reserve, inclusive of the development rebate, of Rs.179.75 lakhs, as against a paid-up capital of Rs.247.26 lakhs. The reserves thus formed about 73 per cent of the capital. But during 1954-60 the Company never paid any dividends. If we compute this at 6 per cent on the capital figures in the different years, an amount of Rs.70.74 lakhs was foregone by the government under the head of dividend not received. When the reserve, to have meaning, is considered in net terms, it comes down to Rs.108 lakhs and works out at 44 per cent of the capital, which is still a very good indication of the financial performance of the Company. The Hindustan Cables Ltd. had a total reserve

of Rs.105 lakhs towards the end of 1959-60, which worked out at 52 per cent of the capital outlay. Since a small dividend of 2 per cent was paid during the previous years, notionally an amount of Rs.25 lakhs was lost during the years 1955-60, under the head of dividends. The net reserves should really be computed after deducting this amount from the apparent figure of Rs.65 lakhs; still they work out at about a third of the capital - a good index of its financial performance.

The example of Hindustan Aircraft Ltd. forcefully indicates the purpose of the point at issue. By the end of 1959-60 it had a total reserve of all kinds of Rs.252 lakhs which worked out at 17 per cent of the capital. As against this the dividends foregone - the Company never paid dividends except in 1949-50, during the four years 1956-60 alone amounted to Rs.246.24 lakhs at the rate of 6 per cent, so much so that the claim of reserve formation is a dubious one.

The position regarding the losing enterprises is worse, though not different in principle. For example, the Ashoka Hotels Ltd. made a loss of Rs.55.86 lakhs during 1956-60; however, the net loss was much more than that, since the dividend foregone of about Rs.25.5 lakhs during the period at 6 per cent has to be taken into account. To take but another example, Bharat Electronics Ltd. made a loss of Rs.20.37 lakhs during 1954-60; though, in real fact, the dividends foregone being considered, the loss sustained by the taxpayer shoots up to Rs.113.76 lakhs. If the capital were treated, not as equity, but as bonded debt, the totality of loss involved would have found obvious expression in the financial accounts of the

undertaking itself.

The equity device can be a convenient medium of concealing the real quantum of factors employed by a losing public enterprise, unless (though the legal friction of equity does not require it) a notional provision is made for the cost of capital which has not been met from the revenues of the undertaking, and carried forward, from year to year, if necessary.

In concluding on the question of dividends, the distinction presented in the previous chapter between the prices and the tax elements may be recalled with purpose. Wherever very high payments to the government are made possible on account of the equity character of the investments, the government derives, in effect, tax revenues through the medium of profits. If the earlier plea to keep prices and tax elements separate is admissible, unlimited equity dividends are an untenable financial mechanism. It is preferable in general to stipulate the government's claims on its investment in a public enterprise at a given percentage, which operates with the force of a cost on the enterprise, and to devise an independent method of making a clean transfer of whatever surpluses are still available and desired to be made over to the government. Participating preference share capital is an interesting idea in this connection; it calls for a fixed rate of return, while allowing the government to participate in the remaining surplus. The latter, to the extent received by the government, may be considered as equivalent to the tax elements in public enterprise prices.

B. Source of Capital

Broadly there are two possibilities. The government may supply all the capital required by a public enterprise, or the government may empower it to go to the market in search of funds. (Self-financing is excluded from the present discussion which relates to funds drawn from outside the enterprise.)

Though it is theoretically possible for certain public enterprises in India to go to the ^{capital} market, there has been a general preference for the practice of the government being the main supplier of funds. The reasons in support of this policy are as follows. Firstly, the government can thereby control the capital expenditure programmes of a public enterprise. Even otherwise the government can use its power of approval of capital budgets and of giving directives, to regulate the extent and timing of public enterprise borrowings in the open market; yet it may prove to be a less cumbersome device for the government to be the main supplier of long term funds. Secondly, the government can confer on a public enterprise the advantage of cheapness of capital because of the governmental credit in support of the procurement. Thirdly, a public enterprise can be relieved of the test of the capital market and funds made available even in circumstances in which borrowings in the open market fail it. The last two reasons are not sound in strict analysis, though, in the case of enterprises whose indirect returns are estimated to be high, the method of governmental supply of funds may be availed of with a deliberate purpose.

As regards the procurement of capital from non-government sources, the public enterprises have two alternatives. They may borrow funds as bonded debt or they may acquire equity capital. Since the loan funds are likely to carry a governmental guarantee of both principal and interest, the only difference from the direct supply of funds by the government is that the enterprise enjoys some flexibility in the matter of timing the borrowings. Further, where, for no particular reason, an enterprise fails to derive funds directly from the government, it may go to the market for money, though once again it has to ask the government for the guarantee. On the whole the method is of avail for the profitable enterprises. Open market borrowing was attempted by the Andhra Pradesh State Electricity Board in 1960; this was followed by an under-subscription which had to be made good by the government.

The procurement of equity capital from the public is another version of private participation in public enterprise. The Estimates Committee recommended in some of its reports the policy of offering at least 25 per cent of the share capital of a government undertaking to the public.¹

The reasons usually adduced in support of such a policy are that (a) the government can spread its own resources over a wider network of activity than otherwise would be possible; (b) the representatives of the private shareholders on the board of directors bring with them welcome managerial initiative. The practical problems in the implementation of the policy are as follows.

Firstly, unless the profits of a public enterprise are high, it is unlikely to attract the attention of private investors. Secondly, there ought to be reasonable hope of profits continuing to be high. This is, in a sense, proportional^{al} to the extent of managerial responsibility effectively conferred on the private quota of directors on the board. It is doubtful whether the latter can find in the public enterprises the same environment for their initiative as they find in private enterprise. Further there is a strong feeling in some quarters that private businessmen are not the right kind to be invited to the public enterprise boards;¹ some think that it is dangerous to have on the board a private businessman engaged in a similar trade, for he is a potential competitor. Thirdly, even though the current profits are high, there ought to be a guarantee that the government will not use its powers of taxation, determination of price policies and directions on the ploughing back of profits, in such a way as to reduce the enjoyable dividends. Obviously no government can offer such a long term guarantee.

¹ Paul H. Appleby

These complications prompt private investors to seek other channels of investment as far as these are available. However, the method of equity subscription by private investors is helpful in two circumstances. Firstly, the government can use it as a lever for passing a governmental undertaking into private hands, when felt necessary, simply by effecting a sale of the required number of its shares to private interests. Secondly, where a scheme of nationalisation is desired to be operated through the medium of a holding company and the private interests earlier in the line are not sought to be totally displaced, for example, in the extensions of road transport nationalisation far and wide in the country, a substantial degree of private equity capital may be allowed to continue; but it may be noted as an axiomatic condition that the enterprise is likely to make good profits and that the initiative of the erstwhile owners is continuously kept up. This method is of particular use for the Warehousing Corporations as well, as they seek to extend the network of warehouses in small places. These may be organised as semi-independent subsidiaries functioning under its general policy, and private or co-operative capital may be let in.

In the generality of industries in the public sector the device of equity participation by private investors is bound to be of limited practical value. The withdrawal of the Scindia Steam Navigation Company Ltd. from the Western Shipping Corporation Ltd. as well as from the Hindustan Shipyard Ltd. is an interesting point by way of illustration. The Bombay State Road Transport Corporation originally intended to offer a small part of its capital to private interests, including

coastal shipping; but the lack of interest on their part compelled it to allot the shares to the state government itself. The full amount of private capital originally planned was not available to Ashoka Hotels Ltd. so that the government had to change its position from a minority shareholder to the majority shareholder. A few other cases of private subscription, as in Indian Telephone Industries Ltd. and Praga Tools Corporation Ltd. are for special or historical reasons of nationalisation. The only significant kind of private participation, in principle, is the institutional participation by the cooperative banks and the scheduled banks in enterprises like the State Financial Corporations and the State Warehousing Corporations.

The Swedish example of deliberate provision for private shareholders in certain State Companies is of interest in this context. A few private persons are selected by commercial or other interests to hold relatively small amounts of capital, the intention being "not, of course, to provide a private income for the fortunate private individuals, but to establish a suitable means of financial control by persons who actually had a stake in the enterprise, however small".¹ This is partly ensured by empowering them to appoint a large number of directors disproportionately with their relative sharing - for example, four out of eight in the Tobacco Monopoly and the Wine and

¹ Douglas V. Verney, Public Enterprise in Sweden, p.47

Spirits Company. A point not to be missed in this context is that while, ⁱⁿ some cases such as the Tobacco Monopoly, the private shareholders are selected by "national organisations representative of capital and labour", those in the others, such as the Wine and Spirits Company and the Sweedish Restaurant Company, "represent the various political parties".¹

3. EFFECTIVENESS OF CAPITAL USE

We shall turn next to effectiveness of capital utilisation by the public enterprises, to which a few references were made in the previous chapter.

(A) The economics of the Project

An investment decision is to be based on a comprehensive computation of the capital expenditures involved, the annual costs inclusive of capital charges, and the revenues, as far as an estimate of the future costs and prices is possible. Where the estimates indicate that the earning prospects are limited, the capital as well as the revenue budgets ought to be correspondingly tailored; and where the revenue estimates show peculiarities in certain regions or at certain future dates, the installations of capacity as well as the plans of operations over the time or regional scale have to be suitably designed. The need for fully working out the project economics

1 Douglas V. Verney observes that several of the shareholders of the Sweedish Restaurant Company are "active politicians". Ibid, page 48.

arises from the fact that the aim is not the mere creation of a physical utility but the creation of a utility which has the prospect of commensurate return.

A common handicap of many enterprises in this respect is that, as their gestation periods are fairly long, the estimate of returns, which lie too far in the future, is unlikely to be accurate. However, subject to the normal errors of prediction under these conditions, every attempt should be made to visualise a complete picture of the project economics. To no small extent do social pressures influence the objectivity and thoroughness of the process of estimation; and claims of indirect returns complicate it severely, as in the fields of rural electrification and railway building in sparsely trafficked areas.

Empirical evidence enables us to generalise on three particular versions of the problem, namely, that there is no adequate estimation of the revenues, that there is no proper comparison of the costs (and all costs) with the revenues, and that, though some vague estimates of direct and indirect returns set the aggregate investment decision, substantial parts of a big project suffer from neglect of specific cost revenue estimations and comparisons.

For example, the Hindustan Steel Ltd. was criticised by the Estimates Committee for not working out fully "the estimated total value of the products to be manufactured" and for the consequent lack of comparison between the inputs involved and the revenues expected," at the stage of the

approving project reports"¹. In the view of the Committee, insufficient thought was given to the question of cost of production in the new steel plants.² Similarly "no consideration was given to the idea of correlating the number of beds with the investment" in Ashoka Hotels Ltd., with the result that the annual cost per bed stood at Rs.64,000 as against the normal cost of Rs.35,000.³

An example of inadequate attention to the economics of specific investment decisions is found in the field of railway catering. This was introduced on a "no-profit, no-loss" basis in 1955; though losses occurred and in increasing magnitude year after year, it was only in 1958 that an enquiry was set up by the Railway Board and it was found out that accounting difficulties stood in the way of gauging the results of departmental catering correctly. The point relevant to the context is that the replacement of one expenditure plan by another was not accompanied by a proven superiority of the economics of the preferred plan.

(B) Investment choice

In order that the schemes of capital expenditure are the most economical, a public enterprise ought to develop a proper technique of choice among alternative investment possibilities, given a broad outline of the nature and size of the

1 Estimates Committee, 1958-59, E.C.No.103, on Hindustan Steel Ltd., page 56.

2 Ibid, page 58.

3 Estimates Committee, 1960-61, E.C.No.213, on the Ashoka Hotels Ltd. page 4.

product. There can be diverse plant compositions and constructional sequences, among which the most economical from the standpoint of the enterprise ought to be selected, subject to any inevitable limitations on the availability of material, skill and foreign exchange. Three patterns of investment choice may be distinguished in illustration. (a) Plant composition or constructional sequence A may cost less than that of B in terms of a given output; hence A should be preferred to B. (b) A plant composition or constructional sequence of A, plus B, plus C may be cheaper in terms of a given output than that of A, plus B initially and the addition of C subsequently; hence the plan of A, plus B, plus C is to be preferred. A slight variation of the proposition is that, when C is taken up at a subsequent stage, the efficacy of the already installed capacity A, plus B may be reduced either during the setting-up of C or permanently later; so that the final structure of A, plus B, plus C may be more expensive still. (c) Plant composition or constructional sequence of A, plus B, plus C for a certain output may be proportionately cheaper than that of A, plus B for a smaller output; hence, assuming that the output can be sold, we have to prefer the A, plus B, plus C pattern. A converse version of this is that plant composition A which is adequate for the ^{see} foreseeable demand is to be preferred to plant composition B which may be intrinsically cheaper per unit of output but is unlikely to be sufficiently utilised to lead to the economy within a ^{see} foreseeable period.¹

¹ The Public Accounts Committee, 1959-60, cites in its Report P.A.C.No.48, on pp.18-19, the "complete lack of foresight and planning" which resulted in the construction of a diesel locomotive shed at Radhanpur during 1955, which had no early prospect of full utilisation.

Comparisons such as these as between different possibilities of investment programming are constantly undertaken by businessmen. To what extent the managers of the public enterprises and the government have been equally alert in this respect, it is difficult to establish. It is, therefore, proposed to cite a few illustrations with the only intention of indicating the purposefulness of the above points.

The programming of capital expenditure on the Nagarjunasagar Project is full of relevant examples; hence we shall draw on it somewhat extensively. The programmed capacity of the Left and the Right canals is kept lower than what the ultimate requirements of water will imply; so much so that at a future date the remodelling of the canals by increasing the height of the banks will prove to be a more expensive proposition than an initial plan for higher-capacity canals. The lining of the canals now dug is proposed to be taken up "after letting out water", when the canals are in commission. While it will then be difficult and more expensive than if done simultaneously with the construction of the canals, there is the additional disadvantage of excessive loss due to seepage in the case of unlined canals. The prevention of excessive seepage adds to the irrigation potential so substantially that an immediate expenditure on lining will prove a worthy proposition. But this is not being done; that is, an inferior investment choice is made. Further, while an expenditure of Rs.36.38 crores is sanctioned for a dam covering 73.66 sq.miles with a live storage

capacity of 1.5 M.A.ft., it is estimated that a small addition of Rs.88 lakhs of investment will increase the dam capacity to 110 sq.miles and 5.39 A.A.ft. of live storage. Here is a clear case of a big addition to output at a disproportionately small addition to the inputs. Finally, though there is a definite cost as well as technical advantage in constructing the second tunnel simultaneously with the first tunnel of the Right canal, a less economical investment decision has been made in favour of leaving the second tunnel out till after the first is completed. Here is an example of how the subsequent constructional work affects the efficacy of the capacity already in existence, so much so that the final cost of the entire project will be far greater than if its vital parts are simultaneously proceeded with.

Two examples of uneconomical investment choice and constructional sequence may be cited from the experience of Hindustan Steel Ltd. Whether the decision in 1957 to build a new road from the quarry in Bilai was quite sound in itself or not,¹ by the time it was completed in 1959 a cheaper rail road was already in commission.

1 Appropriation Accounts (1958-59) and the Audit Report 1960, Part I, page 101. "The construction of a new road at a cost of Rs.22 lakhs merely for the purpose of shortening the lead for the transportation of materials from the quarry by about 11 miles does not appear to have been well-advised from the financial point of view, especially since the road took two years to complete and the Civil Engineering Contractor had meanwhile been paid extra lead for a longer route. Moreover by the time the new road was constructed (March, 1959) a cheaper rail route was also in commission".

The final project report for Rourkela placed priority, as early as in 1955, on the laying of railway tracks about 60 miles long, though only 18 miles were actually built by the end of 1958. The want of adequate railway tracks and sidings proved "a source of unnecessary and heavy expenditure" to the steel plant.¹

The Indian Airlines Corporation's investment choice of eight Herons at a cost of Rs.87.90 lakhs in 1955-56 appears to be an uneconomical choice.² The postponement of dry dock construction at Visakhapatnam is an example of uneconomical constructional sequence. The electric repair and instrument shop building at Sindri Fertilisers and Chemicals Ltd. involved "an extra expenditure of about Rs.31,000" because of constructing the building in two stages, in spite of the originally correct decision in favour of the complete building.³ (X)

It is not suggested that no error of investment choice is ever permissible, nor that every error can be provided against. In fact a few errors may very well be the price for many right decisions. The above examples do not help us in quantifying the errors of investment choice in the public sector as a whole; nor do they indicate how frequent the errors of investment choice have been in the public sector so far; yet they are enough to prompt us to devise more economical techniques of investment choice.

1 Appropriation Accounts (1956-57) and the Audit Report, 1958 Part I, page 60.

2 Though the Herons, which resulted in operational losses of Rs.22 lakhs, Rs.32 lakhs and Rs.20 lakhs during 1955-56, 1956-57, and 1957-58, were subsequently withdrawn from service, only one was disposed of by 1958 and the sale was, of course, to the government. Appropriation Accounts (1957-58) and the Audit Report, 1959, Part I, p.55

3 Appropriation accounts (1956-57) and the Audit Report, 1958, page 54.

(C) Phasing of capital expenditure

This is one version of investment choice, in the sense of choice in the timing of the expenditure. Broadly the two alternatives are a quick tempo and a long-phased programme. The theoretical merits of the quick-tempo programme are as follows.

Firstly, there are economies of capital expenditure due to the full utilisation of the constructional overheads which, at their minimal necessary level, may be sufficient for a fairly large programme of expenditure. For example, it was estimated that "without having to increase the establishment proportionately",¹ the tempo on the dam construction at Nagarjunasagar could be increased by about Rs.6 crores a year over the overall expenditure of Rs.29 crores during the 1955-60. The slow tempo actually pursued implies eventually higher aggregate capital costs on the completion of the project.

Secondly, the fruition of an investment is conditioned, in several cases, by the implementation of the necessary "complementary investment" decisions - a point referred to in the second chapter; and all deviations from the simultaneousness of such expenditures limit the results of the major, or any single investment, decision. The postponement of the dry dock project at the port of Visakhapatnam, which was originally sanctioned in 1955, is a case

¹ Estimates Committee, Andhra Pradesh Legislature, 1960-61, on Nagarjunasagar Report, p.36.

Project,

in point. It may be noted that the argument in favour of simultaneous complementarity decisions applies not only to decisions within an enterprise but to decisions as between enterprises or industries.¹ In the latter case the responsibility for the decisions is clearly that of the government rather than of the managers of a given public enterprise.

Thirdly, the slow tempo inflates the capitalisation of interest charges during construction. For example, at the interest rate of 6 per cent the scheme of annual capital expenditure of Rs.100 will result in a capitalisation of Rs.594 at the end of five years when the project is completed, whereas a quicker tempo at the rate of Rs.250 of expenditure per year may result in a capitalisation of about Rs.546 at the end of the two years. Apart from the higher capitalisation, the realisation of outputs commences far later in the future in the former case than in the latter.

A quick tempo of capital expenditure is not the same as, and does not justify, over-capitalisation; it is justified in terms of expending the most reasonable amounts necessary for a given output. This is a vital qualification to note, so that the possibilities of extravagant and uneconomical expenditures in the name of quick tempo may be avoided.

1 An interesting example of apparently inter-industry complementarities in investment planning may be deduced from Mr. Jehangir Ghandy's address at the Defence Services Staff College at Wellington in November 1961. "Rourkela's ore-mine at Barsua became operational only two years after the first blast furnace was blown in, while Purnageri, from where Rourkela is to obtain limestone, was not still in a position to make any substantial supplies". And he showed how limestone was a 'scarce' material. (Report in The Economic Times, 22nd November 1961.)

Another consequence of ~~two~~ slow completion of a project is that certain excess_{es} of current operating costs over incomes tend to be capitalised, though strictly they ought to be considered as initial losses of operation and transferred to a suspense account to be treated as a deferred expenditure item. These are different from the costs of construction. The distinction is not maintained, for example, by the Hindustan Steel Ltd. Consequently the capitalisation will be larger than is supported by the worth of the assets and the higher charges of interest and depreciation will rank in future than are justified.

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There are at least two limitations to the adoption of a quick tempo. A major one lies in the non-availability of the required foreign exchange. Even in this regard we have to weigh the diseconomy of locking up scarce capital in a slow-tempo project and the benefits of return currently foregone, on the one hand, as against the social costs of demanding foreign exchange for the project. It may be worthwhile, if only on economic grounds, not to dissipate funds over many slow-tempo projects, but conserve the foreign exchange for a smaller number of quickly finishing ones. Regional pressures vitiate this, of course.

An interesting version of the problem is provided by the Indian Airlines Corporation's inability to secure foreign exchange of about Rs. one crore for the purchase of ^{four} Viscounts; in consequence the service schedules have been ^{seriously} ~~disastrously~~ affected during the later part of 1961. Adequate recognition was not paid by the government to the following grounds in justification of the allotment: (a) it would have enabled the Corporation to put to fully used capital already locked up - the need for fuller utilisation of capacity was prominently emphasised by the Committee on the Cost Structure of the Indian Airlines Corporation, ⁱⁿ 1959; (b) it would have augmented the revenues and helped the Corporation to turn the corner; (c) the direct returns from the allotment and investment would have been sufficiently high in themselves; (d) the social desirability of maintaining, if not, intensifying, the services of the Corporation are no less strong; and (e) the Corporation would have encouraged foreign travel in the country and thus caused indirect benefits to the foreign exchange position.

There are at least two limitations to the adoption of a quick tempo. A major one lies in the non-availability of the required foreign exchange. Even in this regard we have to weigh the diseconomy of locking up scarce capital in a slow-tempo project and the benefits of return currently foregone, on the one hand, as against the social costs of demanding foreign exchange for the project. It may be worthwhile, if only on economic grounds, not to dissipate funds over many slow-tempo projects, but conserve the foreign exchange for a smaller number of quickly finishing ones. Regional pressures vitiate this, of course. The other limitation to the quick-tempo method is the lack of funds. Analytically the problem is two-fold: (a) some public enterprises are forced to a slow tempo because of lack of funds, while the others are not able to use up their budgeted appropriations; (b) the public enterprises under some governments or governmental agencies may suffer from slow tempo due to the latter's difficulty in capital procurement, while those under "abler" governments or governmental agencies may not be under a similar disadvantage. Both these are administrative legacies which can be suitably dealt with, and ought to be in a planned economy. Examples of unspent capital appropriations are available from the experience of the National Coal Development Corporation,¹ whose loan from the government of Rs.4 crores in 1958 remained unspent for long periods; the National Instruments Factory whose actual expenditures during

¹ Appropriation Accounts 1958-59 and the Audit Report, 1960- Part I, page 95.

the entire period of 1951-55 fell far short of the revised estimates (which by themselves fell far short of the original budget estimates)²; and the National Research Development Corporation Ltd. whose expenditures during 1956-59 were lower at Rs.10.23 lakhs than the estimates of Rs.16.04 lakhs.²

The Posts and Telegraphs Department spent Rs.124.23 lakhs and Rs.2.06 lakhs respectively less than the voted and charged sections of the Grant during 1957-58; yet " a supplementary grant in the voted section of the Grant was obtained when even the funds originally granted by Parliament could not be fully utilised by the Posts and Telegraphs Department during the course of the year."³

These examples support the view that for the public sector as a whole opportunities do exist for the quickening of expenditure phasing in certain activities by conserving the allocations in the others without much disadvantage to the latter. An important, and not at once self-evident, version of the solution is ^{to} ~~the~~ slow down postponeable and low-yielding expenditures on some projects in the interest of realising the economies of quick tempo elsewhere. The fact that different administrative agencies

1 Estimates Committee, 1955-56, E.C.No.11, page 79. The total budget estimates during 1952-55 were Rs.96 lakhs, the revised estimates Rs.31 lakhs, and the actual expenditures Rs.11 lakhs.

2 Estimates Committee, 1959-60, E.C.No.163, page 17.

3 Public Accounts Committee 1959-60 - P.A.C.No.94, page 2.

are responsible for securing the grants and for spending them - this is inevitable - should not suppress, but strengthen, the need for effective co-ordination at the apex level. We may recall an earlier observation, namely, that there is greater "external" deliberateness in the expenditure programmes of a public enterprise than exists in the private sector. Ordinarily no private enterprise fights shy of raising the necessary funds if justified by the economics of quick expenditure; and none is anxious to acquire funds which cannot be economically expended. If reverse practices are possible in the public sector, it should be considered a healthy economic objective to minimise them.

(D) The estimating efficiency

As we turn to the efficiency of estimating in the public sector, we may note, for the sake of analytical clarity, that the discussion proceeds on the assumption that an investment choice is made in respect of the location of the project and its production function and that a broad decision is taken on the desirability, economic and otherwise, of the project. The meaning of estimating efficiency, as we shall employ the term, is two-fold: all items that ought to be included in the estimate are covered, and the actual expenditures do not unreasonably vary from the estimates. We are not concerned herewith the procedural aspects of estimating and the internal organisation within an enterprise for the purpose of estimating. The main aim is to examine how estimating inefficiency vitiates an

economics changes with every deviation of the actuals from the estimates, given the size of the product - and an important political requirement, in that the prerogative of parliamentary decision on the propriety of a project is weakened by unbudgeted deviations of actuals from the estimates. The responsibility for the deviations is deferred for consideration at a later stage.

There are admissible as well as inadmissible reasons for deviations between actuals and estimates. The important among the admissible reasons may be outlined in the following terms.

(a) Price changes: For reasons beyond the control of the estimating authority, the prices of the factors may rise as the capital expenditure takes place. To some extent, the likelihood as well as the extent of rise in prices can be foreseen approximately, given commercial experience and shrewdness. For example, the contingency of increased expenditure on this ground led to the inclusion of "escalation clauses" in the estimates of Hindustan Steel Ltd. presented to Parliament in 1957. It is estimated that the increases in wages, prices of raw materials, and freight accounted for Rs.11.69 crores of additional expenditure over the estimates in the case of the Rourkela Project.¹

¹ Estimates Committee, 1958-59, E.C.No.103, on the Hindustan Steel Ltd., page 62.

(b) The dependence, without choice, on foreign consultants, on imported machinery and on similar other external circumstances, may cause a rise in the actuals above the estimates whenever these factors move unfavourably for the enterprise. For example, the consultants who were engaged for giving the plans and estimates of the steel projects "did not give firm and accurate estimates of the costs of the respective projects."¹

(c) There may be changes in the composition of a project leading to a larger output at correspondingly lower additions to expenditure. To some extent the excess of revised figures over the original estimates in the case of Neyveli Lignite Corporation Ltd. are due to this reason: for example, the thermal power station is now planned at 250 M.W. as against the original 210 M.W., and the fertiliser scheme is now to produce 1.52 lakh tons of urea, instead of 2 lakh tons of ammonium sulphate.²

Among the inadmissible reasons for the excess of actuals over estimates the following seem to be the major ones.

(a) Certain items of expenditure are not included in the original estimates. The reason is not always that they could not be foreseen. This seems to be a common lapse in the case of several public enterprises. For example, an item of Rs.15 crores was excluded from the detailed project

1 Ibid, page 55

2 Estimates Committee, 1960-61- E.C.No.219, page 6.

report for Bhilai¹ under the head of construction equipment and temporary works and structures; and the original estimate of Hindustan Steel Ltd. excluded as big an item as Rs.120 crores meant for the townships and several other items of importance. Likewise, common service buildings were excluded from the original estimates of the integrated project of the Neyveli Lignite Corporation Ltd.² To decide on a project without a complete computation of all costs involved amounts to an inadequate assessment of the economics of the project.

(b) Expenditures beyond the estimates have been occasioned at times because of the inapplicability of the estimates to the local conditions encountered as and where the work proceeds. For example, the bucket wheel excavators had to be redesigned at Neyveli "because of the hard surface of the over-burden."³

(c) Changes in design have occurred in several public enterprises, not followed by corresponding or more than proportionate benefits on the outputs' side; these affect the project economics as originally conceived. Several instances are available from the history of the Damodar Valley Corporation. In the case of Hindustan Steel Ltd. at the stage of the detailed drawings for the Bhilai project a large number of "extra items which were not originally included in the project"

1 Estimates Committee 1958-59, E.C.No.103, pages 51-53

2 Estimates Committee 1960-61, E.C.No.219, page 8

3 Estimates Committee 1960-61, E.C.No.219, page 9

appeared to be required, involving "special methods of construction in some cases"; these raised the costs by about Rs.4 crores above the estimates.¹

(d) Delays on the part of the government and inadequate co-ordination among the departments whose sanction is required for an expenditure decision, have been responsible for raising the actual costs over the estimates in some cases. For example an additional expenditure of about Rs.62 lakhs was incurred by the Neyveli Lignite Corporation Ltd. on the purchase of additional conventional equipment for removing the "over-burden consequent on the government not having reached a decision on the German offer of specialised mining equipment "within a stipulated period."²

(e) It is possible that in a few cases the estimates have been kept low either by the consultants supplying the project reports or by the public enterprises or by the government departments concerned, in order to improve the prospect of parliamentary approval of the investment decisions.³ For example the consultants in the case of Hindustan Steel Ltd. "admitted that they had under-estimated the cost deliberately in the interests of the project because there was always a tendency for the figures given by the consultants to be regarded as a sort

1 Appropriation Accounts 1958-59, and the Audit Report, 1960 - Part I, page 96.

2 Estimates Committee 1960-61, E.C.No.219, page 8

3 Estimates Committee 1958-59, E.C.No.103, page 53

of a minimum on which negotiations could proceed for the contract. Supporting evidence for this view may lie in the probability of regional pressures on investment decisions, especially in the fields of electricity and other public utility services. A subtle version of the pressures may consist of an over-estimation of the potential revenues as against given expenditures.

From the above account it can be gathered that estimating inefficiencies can vitiate the project economics considered as justifying an investment decision taken on the basis of the original estimates.

Apart from this, to the extent that excesses of actual over estimates occur, Parliament is almost forced to agree to them "almost helplessly in view of the investment that has already been made."² An allied practice noticed by the Public Accounts Committee with the Posts and Telegraphs Department is to incur major expenditures "without any specific provision in the budget"³. Commenting on the persistent repetition of such a practice for some years, the Public Accounts Committee legitimately observed that "it vitiates financial control by Parliament."⁴

1 Estimates Committee 1958-59, E.C.No.103, page 55

2 Estimates Committee, 1958-59, E.C.No.103, page 55

3 and 4 Public Accounts Committee, 1959-60, P.A.C., No.94, p.3.

4. THE GOVERNMENT AND THE FINANCIAL ORGANISATION

The responsibility for financial planning in the case of a public enterprise is diffused between the government and the managers of the enterprise. The diffusion is particularly applicable to capital budgeting. Under the present conditions of India the government is perhaps the more dominant party in this field, as may be inferred from the observations of the Estimates Committee and the Public Accounts Committee in several of their enquiries, from the Rau Committee's Report on the Damodar Valley Corporation, and from Mr.A.D.Gorwala's Report on public enterprises. (In fact one of the reasons why Mr.Gorwala suggested the departmental form for an investment project till it reaches the stage of operation is that its construction and expenditure matters have to be processed substantially by several departments of the government.¹)

The exact role of the government in the financial organisation of an autonomous public enterprise has to be understood in clear terms, so that neither the permissive, regulatory, supervisory and preventive powers of the government go by default nor do the managers of an enterprise lose the necessary degree of financial autonomy.

(a) It ought to be a purpose of governmental intervention to ensure that an investment choice, including the magnitude of outlay, on the part of an enterprise has adequate justification on three grounds: (i) current financial performance of the enterprise, as well as the economics of the proposed project, (ii) inter-enterprise investment propriety and

(iii) indirect or social returns expected of the investment project. It is difficult to generalise on how efficiently this purpose is achieved by the government today, except on the basis of the evidence on profits and capital programming which, as per our earlier discussion, is not quite satisfying. It may be hoped that the Public Enterprise Commission, suggested earlier, will be an effective agency for the fulfilment of this objective, by providing the government with the requisite analyses conducive to right decision.

(b) Though the quantum of aggregate capital investment in the economy in any year is set under the advice of the Planning Commission, the most economical phasing of expenditure programmes in the case of each public enterprise requires to be done mainly at the instance of the enterprise itself, in consultation with the government. In this connection reference may be made to the impropriety of locking up funds in an enterprise which is immediately not in need of the moneys. If simultaneously other enterprises are unable to get the funds they need, there ensues a clear mal-allocation of resources. The practice of an enterprise procuring funds far ahead of the need can be removed if the government establishes a revolving fund for the public sector industries, from which moneys may be borrowed by a needy enterprise just at the time of, and no earlier than, the need. This is to be understood merely as an operational arrangement; the basic eligibility of an enterprise to the funds is to be determined by the normal substantive considerations.

This offers the economy that goes with any reserve meant for the ready satisfaction of several demands whose occurrence cannot be exactly predicted.

Alternatively the public enterprises may be permitted to the privilege of cash credits from banks. Present practice varies in this respect; for example the Hindustan Shipyard Ltd. has cash credit arrangements upto Rs.4 crores, while many others do not. The purpose of cash credits has sometimes been a matter of controversy. Strictly it ought to be meant for working capital purposes, though capital expenditures, which have been admitted in the capital budgets, may be financed occasionally if the delay involved in securing funds from the government as additional capital is material and likely to prove expensive. It is true that, where the enterprise is eligible to the funds from the government at low or no interest, recourse to cash credits, to whatever small extent, ~~expenditure~~, is a source of extra cost to it. But this is a narrow accounting view; and in any case the cash credits used for capital purpose can only be a small fraction of the total capitalisation of the enterprise.

A few examples of funds uneconomically employed may be cited. The National Coal Development Corporation Ltd. borrowed Rs.4 crores at $4\frac{1}{2}$ per cent from the government in 1958 and for a few months a sum of Rs.3.4 crores was deposited as "call deposits" at $2\frac{1}{2}$ per cent interest with the State Bank of India. The loss by way of difference in interest charges paid and earned amounted to Rs.1.43 lakhs.¹ The Hindustan Steel Ltd. borrowed in 1956 large sums of money from the government, "not related to the needs", and, "retained in the current account with no interest or deposited with bankers at lower rates of interest." During January-September of 1956 the loss on account of the difference in interest rates amounted to Rs.3.75 lakhs.² The Nizam Sugar Factory Ltd. used to invest funds from time to time in government securities at lower rates of interest than those at which the funds were acquired.³

(c) It ought to be an important task of the government to provide the financial organisation of every public

1 Appropriation Accounts (1958-59) and the Audit Report 1960 Part I, page 95.

2 Public Accounts Committee 1958-59, P.A.C., 41-I, pp.66-7.

enterprise and of the public sector as a whole with built-in assurances of estimating efficiency. It is interesting to note that in Britain it is considered to be "the Government's task to satisfy themselves that the procedure within each organisation for scrutinising and approving capital expenditure was effective." At this stage a distinction may be made between the governmental responsibility to ensure efficiency on the part of an enterprise and the encouragement of autonomous exercise of the capital programming function by the enterprise itself; both are equally necessary. The government, in performing its task, ought to insist particularly on the most comprehensive assessment of the project economics at every stage of capital budgeting and expenditure operations.

(d) One of the primary responsibilities of the government is to enable the co-ordination of the capital budgets of a public enterprise with the country's foreign exchange potentialities. It is true that the latter have an overriding purport at times; subject to this, two principles have to be kept in mind: firstly, that a project in which large capital is locked up ought to be given priority of foreign exchange if that helps in its quicker fruition and, secondly, that changes in the prospect of funds ought to be indicated to the enterprise quite some time in advance of the axe on foreign exchange. Examples of foreign exchange difficulties hampering capital programmes may be cited from the experience of the Neyveli Lignite Corporation Ltd., with reference to the briquetting and carbonising plant, and the dry dock at

Visakhapatnam. (In the latter case the foreign exchange difficulty involved was barely to the tune of Rs.2.15crores.) A slightly different instance of the lack of co-ordination between the government and a public enterprise lies in ~~between the government and a public enterprise lies in~~ sanction not having been promptly given by the government for the export of two Vikings at £ 19,500-25,000; by the time the permission arrived, the offers by the purchaser had lapsed; subsequently all the 12 Vikings of the Indian Airlines Corporation were scrapped at Rs.20,000 per aircraft.¹

The shortage of working capital experienced by some of the public enterprises can be remedied by promoting the prompt settlement of debts by the government departments which happen to be their consumers. At times the consumers are the public enterprises themselves. An interesting example is that of the Nahan Foundry Ltd. which experienced considerable difficulty in recovering the dues from its major consumer, the Khadi Board. Likewise some of the public enterprises under the Transport and the Defence Ministries, from time to time, had to borrow moneys on interest when the debts were not promptly settled by the purchasing departments.²

1 Appropriation accounts, 1959-60, and the audit report, 1961-Part I, page 70.

2 Among the debtors of the Air India International is the Foreign Affairs Ministry whose dues for several lakhs of rupees have been outstanding for over two years.

(e) It is likely that an expert enquiry into the financial programming of the major public enterprises will reveal the exact nature of checks and balances prevalent in the system of investment choice, estimating and control over actual expenditure. Two recent investigations in Britain reveal the imperative nature of such information. The Fleck Committee on the National Coal Board observed that "major capital projects ... do not get enough scrutiny" at the Headquarters; "with such large sums involved, the schemes should have the thorough sifting and testing to which they would be subjected by a commercial concern in private industry."¹ The Herbert Committee on Electricity likewise expressed the opinion that "the control today, either for seeing that unnecessary projects are not undertaken or for ensuring that value is received for money spent on necessary projects is somewhat weak."² From the elaborate evidence cited above on the public enterprises in India it does not seem unreasonable to expect that independent enquiries of the "Fleck-or-Herbert type" will be able to suggest the methods of stream-lining the system of financial organisation in the public sector undertakings.

~~The public corporation Acts in India do not stipulate the same degree of ministerial responsibility for the~~

1 Report of the Advisory Committee on Organisation, National Coal Board, 1955, page 64.

2 Report of the Committee of Inquiry into the Electricity Supply Industry, H.M.S.O., Cmd.9672, page 92.

undertakings. The recent Report on the Cost Structure of the Indian Airlines Corporation (1959) is one of the ~~view~~ ^{conclusions} a few non-parliamentary documents providing ~~collection~~ on the expenditure efficiency prevailing in the public sector in India. The Committee observed that "the budgets prepared by the Corporation are deficient, firstly, because they lack "grass ^{routes} ~~rates~~" (i.e. they have ^{not} been sufficiently built up from detailed estimates of expenditure made by the officials ultimately responsible for that expenditure) and, secondly, because they do not effectively relate costs and revenues for the various routes and groups of routes operated by the Corporation."¹

The public corporation Acts in India do not stipulate the same degree of ministerial responsibility for the

¹ Report on the Cost Structure of the Indian Airlines Corporation 1959, page 1

settlement of capital expenditure programmes of a public enterprise as the British Acts do. For example the Electricity Act, 1947, requires that "in carrying out such measures of re-organisation or such works of development as involve substantial outlay on capital account ... the central authority shall act in accordance with the general programme settled from time to time in consultation with the Minister"; Section 4 of the Transport Act, 1947 has a similar purport; and so on. It is not suggested that the Government of India does not concern itself with the capital programmes of the public enterprises - far from it; it is, however, preferable to make this a statutory responsibility of the minister, supplemented by the provision that he shall ensure that a reasonably effective machinery for the purpose exists within the enterprises themselves.

The other important suggestion that may be made in this connection is that there should be bias through statutes and governmental advice in favour of the division a big enterprise into a reasonable number of sub-units, each enjoying a reasonable degree of financial autonomy. A notional system of criteria of financial performance may be set for each of them; apart from facilitating proper pricing structures and investment criteria, it develops the highly desirable quality of financial responsibility at the intermediate levels of management.

In conclusion, we may refer to the British practice in respect of capital programming. To take the example of British electricity, the Generating Board determines "three

An interesting example of organisational decentralisation, including a fair degree of financial autonomy to the sub-units, is available in the government's recent proposals of reorganisation of the national transport undertakings in the U.K. Apart from the British Transport Commission being replaced by different Boards in respect of railways, ports, waterways, London Transport, and roadways, each Regional Railway Board will itself be "fully responsible for the management and operation of their regional railway systems. Each will be autonomous in all matters which concern its region alone... Each Regional Railway Board will maintain a regional trading account as a means of assisting it to secure the highest level of efficiency and economy of operation".¹

In conclusion, we may refer to the British practice in respect of capital programming. To take the example of British electricity, the Generating Board determines "three

1 Reorganisation of the Nationalised Transport Undertakings,

H.M.S.O., cmd. 1248, pp. 5-6.

programmes of generating capacity - a "firm" programme for the fifth year ahead, a "provisional" programme for the sixth year, and a "tentative" programme for the seventh year. In the consultations that follow, the Electricity Council, the Area Boards and the Minister of Power participate appropriately. The minister finally gives approval "in July or August to the programmes and to the incurring of capital expenditure of a stated amount during the succeeding year, with provisional approval for the year beyond that".¹

Under the latest policy of the British Government on the public enterprises, the government discusses with each public enterprise each year, approves "the general lines of its plans for development and capital expenditure for the next five years ahead", and is "ready to agree to long term commitments as appropriate"; the government "will each year fix an upper limit on the amounts to be spent on investment by the undertaking during the two years ahead".²

The salient features of British experience, may be outlined as follows: (a) The specific responsibility of the minister for the capital programmes of a public enterprise is statutorily recognised. (b) An endeavour is made to ensure that an effective system of capital programming exists within an enterprise. (c) There is a fair guarantee of continuity in the flow of funds, almost certainly over

1 Finance for Power, The Electricity Council, pp.12 and 20.

2 Financial and Economic Obligations of the Nationalised Industries, H.M.S.O., Cmd. 1337, page 8.

a two-year period. (d) The eligibility to expansion on the part of an enterprise is made dependent on its financial performance, by and large.

5. INTER-ENTERPRISE CONSISTENCIES

If we recall the principles of financial organisation enunciated at the beginning of the discussion, it seems necessary to expect the public enterprises to adopt certain financial practices consistently with one another. The plea is not for the standardisation of every practice or decision; in fact there is a strong case for promoting the maximum degree of autonomous practice on the part of an enterprise, linked essentially with its own objective conditions of cost, demand and financial requirements. However, in matters such as the following, inter-enterprise consistency is desirable both for ensuring that the financial performance as revealed by the accounts of an enterprise is comparable with that revealed by the financial statements of another enterprise, and that the managers of a public enterprise, innocently or deliberately, do not by themselves, through their financial policies, set in motion the forces of re-distribution of incomes.

In the field of costing it is essential to provide every public enterprise with advice on the quantum of depreciation to be provided on its assets. Depreciation provisions can be "managed" within wide limits, depending on commercial prudence, income tax relaxations and other considerations. The profitability of an enterprise at a given

time can be shifted upward or downward, in the accounts of the enterprise, by an under-provision or an over-provision of depreciation. Wherever the manipulation is intended to give an inflated impression of profits, the practice is particularly objectionable. ^(For example, the Hindustan Steel Ltd. refrained from a Rs. 5 crore provision for depreciation in 1959-60 because of its ~~unusually~~ low financial results.) X In the absence of certainty that the necessary quantum of depreciation has been provided for, we cannot judge whether the financial performance of an enterprise as revealed by its accounts for a period gives a faithful representation of its relative position in the national economy. To the extent of an under-provision, its financial merits vis-a-vis the other enterprises are poorer than are indicated by the accounts; and to the extent of an ~~excess~~ over-provision, it has resorted to unnoticed savings and re-investments.

The remarks of the Director of Commercial Audit on the Hindustan Shipyard Ltd., from time to time reveal that clear and adequate methods of providing for depreciation are lacking.¹ The Comptroller and Auditor-General's report on the accounts of National Coal Development Corporation Ltd.,

1 For example, the Director of Commercial Audit observed that "No depreciation has been charged on Machinery worth Rs. 18,41,036 purchased at different times during the last 5 years which is lying uninstalled." (Hindustan Shipyard Ltd., Seventh Annual Report, p. 34).

for 1957-58, indicates that the Company was carrying some of its assets "which have become obsolete or unserviceable" at inflated prices in the books, and that the adequacy of depreciation provided for the fixed assets was not easily capable of verification. A slightly different example is that the Company included in its debtors a figure of Rs.13.76 lakhs which had been "outstanding for nearly 10 years". It could not be known to what extent these were likely to be bad debts.¹

The broad principles of depreciation and valuation of other assets including stocks may be enunciated by the Comptroller and Auditor-General and any modifications required by the particular conditions of an enterprise may be effected in due consultation with the managers concerned from time to time.

Another important area of costing in which a notional standardisation is essential from the economic point of view, relates to the cost of capital. The point, which has already been discussed, may be summed up by stating that the cost of procuring funds should be computed at a uniform notional rate, though every enterprise does not have to pay that rate, so that the figures of net profit remaining after such provisions become a homogeneous unit for inter-enterprise comparisons.

¹ Appropriation Accounts, 1958-59, and the Audit Report 1960, Part I, pp.94.5. Further evidence is available from the Audit Report for 1958, page 53, on the Nahan Foundry Ltd. whose under-provisions of depreciation and over-valuations of stock were discovered for the first time in 1954 by the Cost Accounts Officer of the Government of India.

It may be noted that this does not negative the justifiable privilege of certain undertakings not to have to aim at earning the notional rates in full; however, we shall know the exact extent of subsidy involved.

The welfare expenditures incurred by the public enterprises, as well as the bonus payments made by them, do not invariably have demonstrable justification in the financial circumstances of an enterprise, in every case. Some enterprises making low profits or losses, have declared some kind of bonus from time to time; while among the enterprises with profits some have done so while others have not. Apart from the payments for extra productivity, which can stand objective verification to some extent, welfare expenditures and bonus payments are questions related partly to the financial potentialities of the enterprise and partly to overall policies of social welfare and income re-distribution which the government may wish to effectuate through the medium of the public sector. Hence there is need for governmental advice to every public enterprise on the limits within which such cost commitments or profit appropriations may be proceed with. Wherever major deviations are necessary more specific advice has to be offered by the government.

Finally, we shall not be able to adjudge inter-enterprise merits unless their financial statements provide for a reasonable isolation of the costs and revenues autonomously determined by the enterprises on commercial grounds, from the costs and revenues traceable to public policies and to the broad concept of the national interest, in whichever

way it may have been interpreted for an enterprise at a given time. To judge the financial efficiency of an enterprise on its composite results is an inferior method of assessing its merits to a judgment in terms of its commercial operations. The greater the diversities among the enterprises, in respect of the admixture of commercial and non-commercial functions, the greater the need for promoting the financial particularisation of commercial, distinctly from non-commercial, operations.

For example, the Air Transport Council recommended, in its report on "Indian Airlines Corporation's Fares and Freight Rates" (May 1957), that "the service pattern of the Corporation should be classified as follows: (a) services which are remunerative ~~(b) services which are remunerative~~ (b) services which are likely to be remunerative over a long period, and (c) services which cannot reasonably be expected to be remunerative and are not, therefore, justified on commercial grounds. As regards (c) above, the Corporation should consider the question of abandoning such services unless the relatable losses are recouped by a special grant from the government".

To conclude: The financial organisation of every public enterprise ought to be conducive to its highest economic efficiency; and that of public enterprise as a whole ought to be conducive to the most desirable relativities of economic efficiency as between the enterprise. There are two important aspects of the problem. Firstly, the inevitable diffusion of responsibility between the government and a public enterprise for the performance of the latter ought not to lead to inefficiencies in its financial organisation. Secondly, in the place of several automatic checks and balances in the private sector we have to set up rules and conventions that are not only appropriate in theory as well as in practice but amenable to flexibility as promptly as circumstances warrant.

The real cost of the factors employed in a public enterprise ought to be known accurately; and the treatment of major financial items by different public enterprises ought to be such as enables us to compare their financial merits.

The motto should be that every rupee invested is most economically intended, expended and rewarded.